Richard Ellis, Sallmann & Seward

BUILDING CONSTRUCTION ASSIGNMENT

PREPARED BY GRAHAM H. MILLAR

APRIL - SEPTEMBER, 1972

A REPORT ON THE CONSTRUCTION OF A SINGLE STOREY BRICK VENEER COTTAGE AT LOT 58, LAMONT STREET, WINDSOR CONTAINING A LOUNGE, DINING ROOM, 3 BEDROOMS, BATHROOM, KITCHEN AND LAUNDRY

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D. LOCATION MAP

E. COPY OF CERTIFICATE OF TITLE.

Surrounding Developments:

It may be seen from Photograph 1 that there is a mixture of dwellings surrounding the site.

All the buildings are single storey cottages but they vary between fibro and brick veneer construction.

All the fibro cottages are between 15 and 20 years old whilst those of brick veneer construction are not more than 5 years old. As a result it can be expected that there will be a reduction in the sale price of the developed property.

Lamont Street and surrounding streets are all kerbed, sealed and guttered.

Services Available:

The following services are available to the site:

1. Water
2. Electricity
3. Transport (within 200 yards)
4. Sewerage.

Plans:

Plans, sections and elevations of the building may be found at Appendix C.

Specification:

The specification for the erection of the building is attached at Appendix B.

Approvals:

The necessary Council approvals for both the building plans and specifications may be found stamped upon the documents forming Appendices B and C.

Certificate of Title:

PART I: P R E A M B L E

Location:

The subject block is situated at Lot 58, Lamont Street, Windsor. The location map at Appendix D shows the location of the site in relation to the town of Windsor.

The distance to Windsor Railway Station is about 1½ miles and approximately 35 miles to the Sydney G.P.O.

Site:

The site has a depth of 104'6" and a frontage of 56'4".

A site plan may be found at Appendix C.

The site is virtually flat having a fall of only 2' from the eastern corner to the western corner over the whole length of the site.

Photograph 1

The above photograph shows the site from the north-west whence the site fronts onto Lamont Street.

PART II: F L O O R T I M B E R S L A I D

On the first inspection of the site, it was found to be covered by long grass and small shrubs. (See Photograph 1.)

The second inspection found that the site had been pegged and the trenches for the footings had been dug.

Photograph 2

The above photograph shows the site at the second inspection with the marking pegs in position. On the right hand side of the site may be seen part of the already dug trenches.

The trenches were found to be 18" x 10" which is in accordance with the requirements of Ordinance 71.

The trenches were dug by mechanical digger and then measured with string by the builder. Where the trenches were found to be too small, further excavation was carried out manually.

The soil was found to comprise a surface layer of about 2 inches of alluvial soil above a hard clay sub-soil.

Footings:

The footings were constructed of re-inforced concrete.

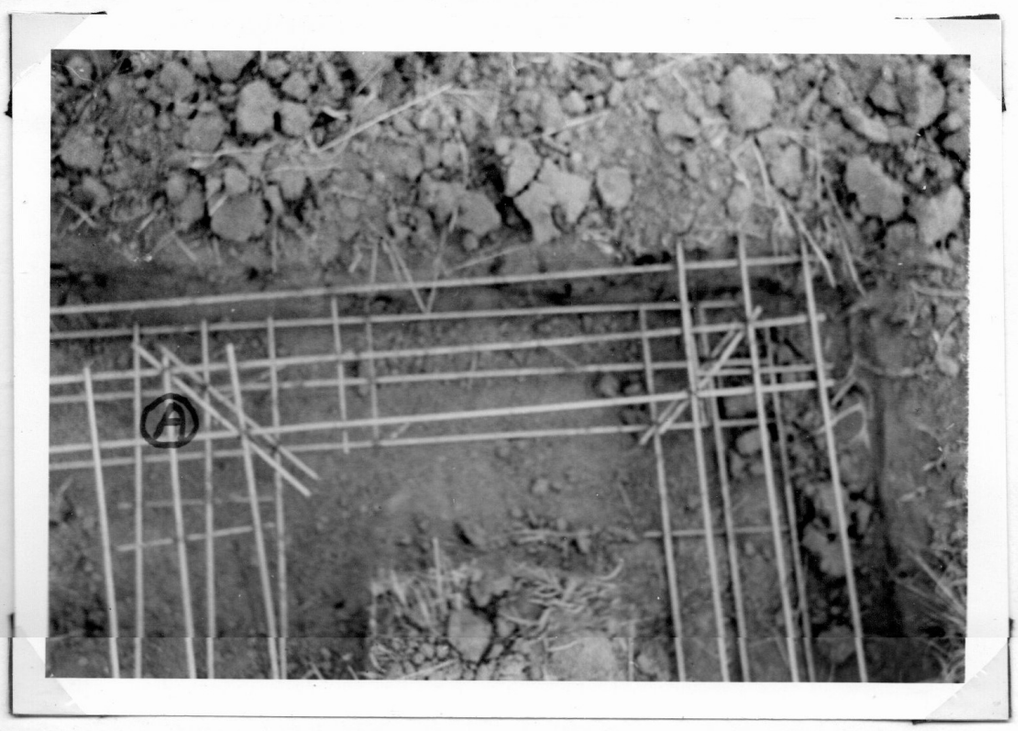
The re-inforcement comprised 6 x $\frac{3}{8}$" steel rods.

Photograph 3

The above photograph shows the steel re-inforcing lying in the footing trench before the concrete is poured.

The re-inforcement had stirrups every 3' for additional support.

Photograph 4



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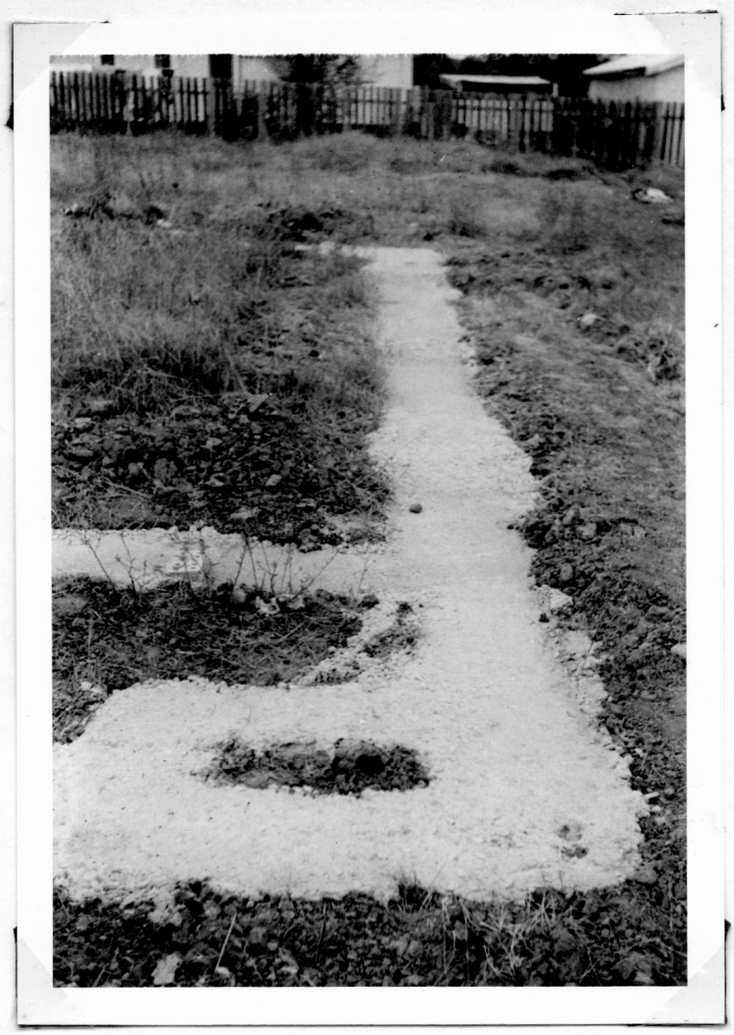
The above photograph shows the steel re-inforcement laying in the trench as work is being carried out upon it. The position marked A shows how a stirrup is being used to strengthen the interlocking parts of re-inforcement.

Photograph 5



This photograph shows part of the site after the concrete has been poured to form the footings.

The concrete was re-inforced with blue metal aggregate being "Ready Mix" brand. 13¼ cubic yards of a 3,000 lb. pressure mix was poured. Two slump tests of the concrete were taken at the site.

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Photograph 6

The above photograph gives a general view of the footings after the concrete has been poured. The footings marked A and B on the photograph form the base on which the concrete slab for the bathroom will be laid (refer to plan).

Brickwork:

Photograph 7

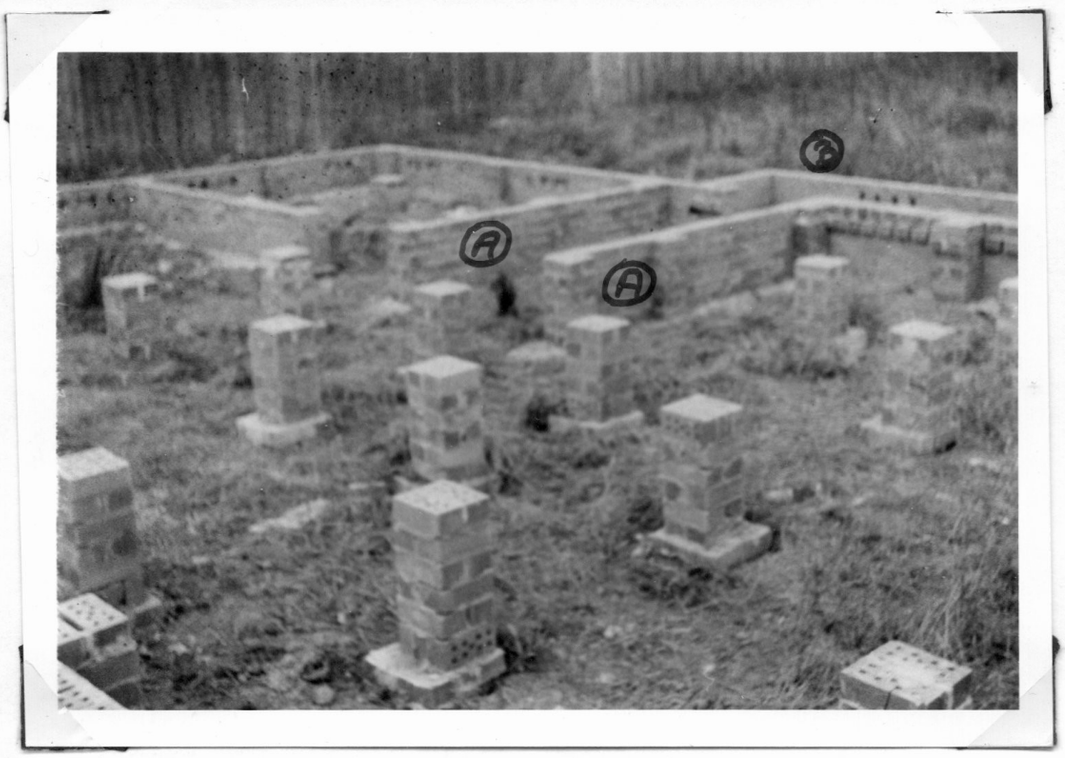
comprise clay air bricks.

The photograph shows:

A: Isolated piers
B: Engaged piers
C: Air vents.

The photograph shows part of what will become bedroom 1 as shown in the plan.

Photograph 8



The above photograph shows a general view of the external walls and isolated piers.

Each isolated pier is 6' from the next measured centre to centre.

The photograph shows:

A: The walls which will support the laundry
B: The wall forming part of the rear verandah.

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Piers:

Photograph 9

This photograph shows the constructions of an isolated pier. The brick work is built upon a 'blob' footing and comprises two courses of 14" brick work and six courses of 9" brick work.

The number of 9" courses varies with the height of the site so that each is finished at the same relative height.

Vents:

Ordinance 71 states at Section 33(a)(ii) that the space between the lowest floor and ground level "shall be ventilated and cross-ventilated by openings in the external walls having an unobstructed area of not less than ½ square inch for each square foot of floor space".

10" / 1' of perimeter wall

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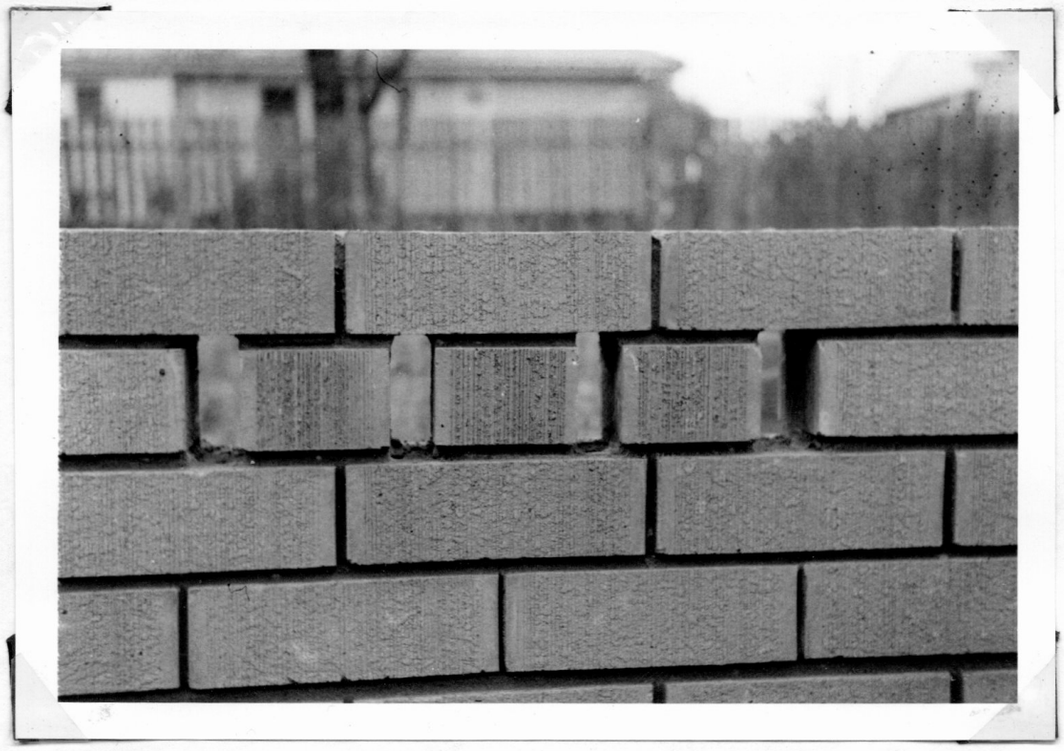
Photograph 10



The above photograph shows the method of ventilation being provided in this dwelling. Rather than use of air bricks the builder had decided to use half bats (or half bricks) for the construction of the air vents. My calculations showed that enough ventilation was provided by this method to comply with Ordinance 71. The vents were built into the external walls at approximately 8' centres (See photograph 11).

The above photograph also clearly shows that the mortar between the bricks had been square raked.

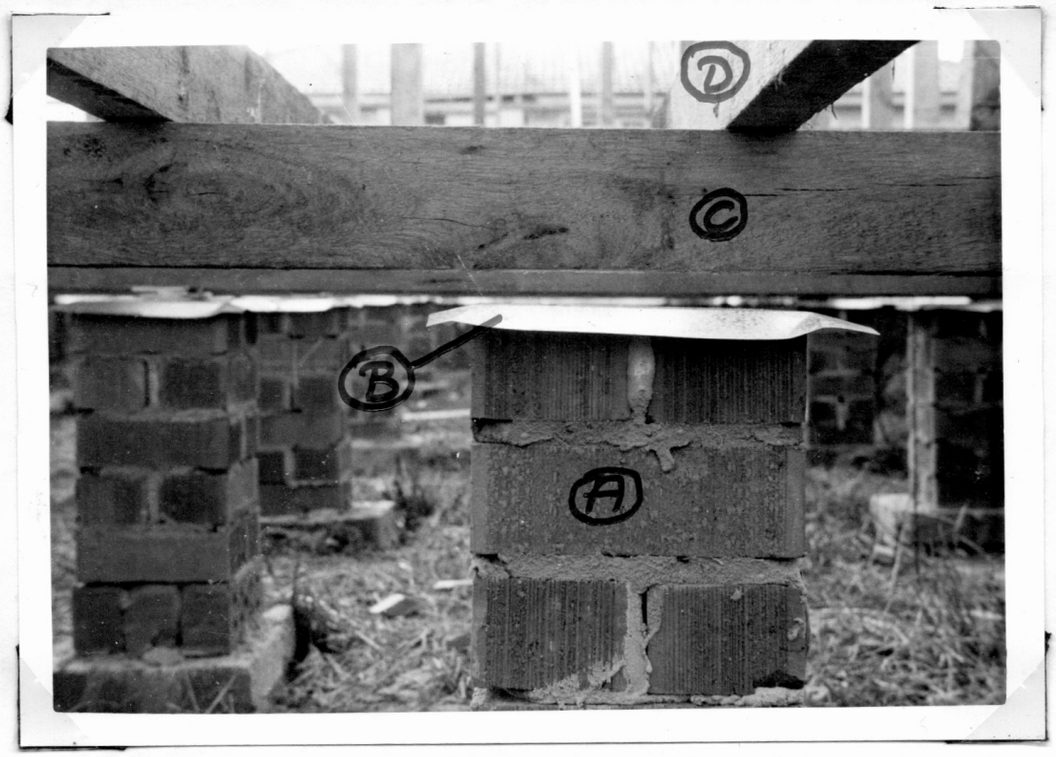
Photograph 11

This photograph shows the relative position of the air vents and their position 1 course of bricks below what will become the damp proof course.

Ant Caps, Damp Proof Courses & Vermin Proofing:

Ant caps are provided at all points in the brick work just below the floor timbers.

Photograph 12



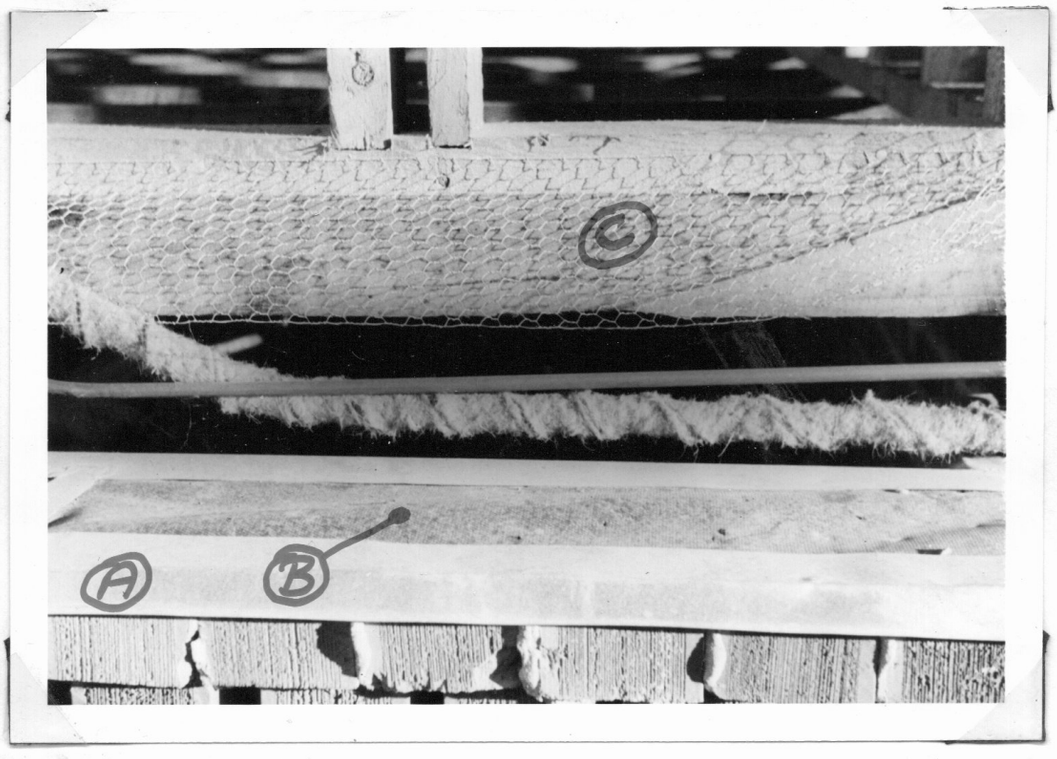
The above photograph shows an ant cap placed at the top of an isolated pier beneath a floor bearer. In this position the ant cap also acts as a damp proof course.

The following are marked in the photograph:

A: Isolated pier
B: Ant cap
C: Floor bearer
D: Floor joist.

The ant cap consists of metal plate extending 2" beyond the pier and turned down at 45^{o}. The plates are used to resist attack by termites, other precautions being taken should be good natural light and regular inspections.

Photograph 13



This photograph shows the position of the damp proof course, the ant cap and the vermin proofing along a typical part of a wall.

A: Ant cap
B: Damp proof course
C: Vermin netting.

The damp proof course comprising bituminous d.p.c. rolls are laid along the length of the wall. The metallic ant cap with the same protrusions as mentioned before is then to the bottom plate. This is then built into the brick-work above the d.p.c. to prevent vermin entering the area between the face bricks and lining from the area under the floor timbers. The vermin proofing comprises wire netting of $\frac{1}{4}$" between strands.

Photograph 20 clearly shows the position of the d.p.c. and the ant cap along a section of the north eastern wall.

Rear Verandah:

The following three photographs are included to show the construction of the rear verandah.

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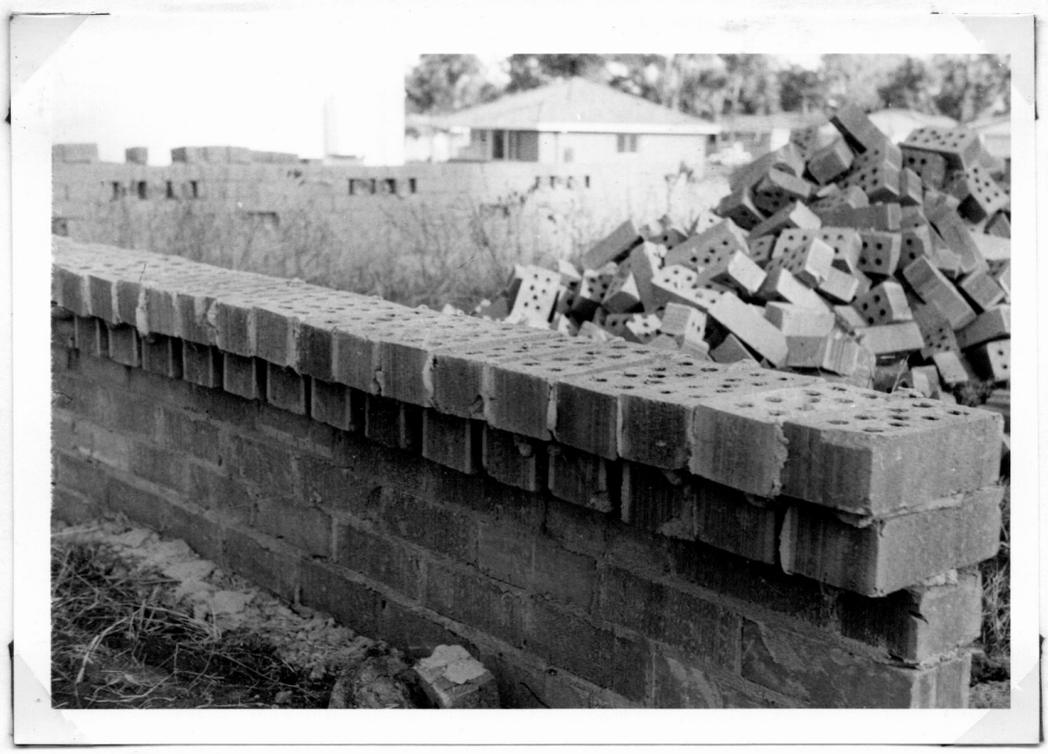
Photograph 14

This photograph shows the position of the verandah in relation to the rear of the building.

Photograph 15



This close up photograph shows how the bricks are "corbelled" to support the woodwork finish to the verandah, referred to as 'A' in Photograph 14.

It can be seen that two courses of bricks are laid at right angles to the wall, each course protruding about ½" further from the line of the wall.

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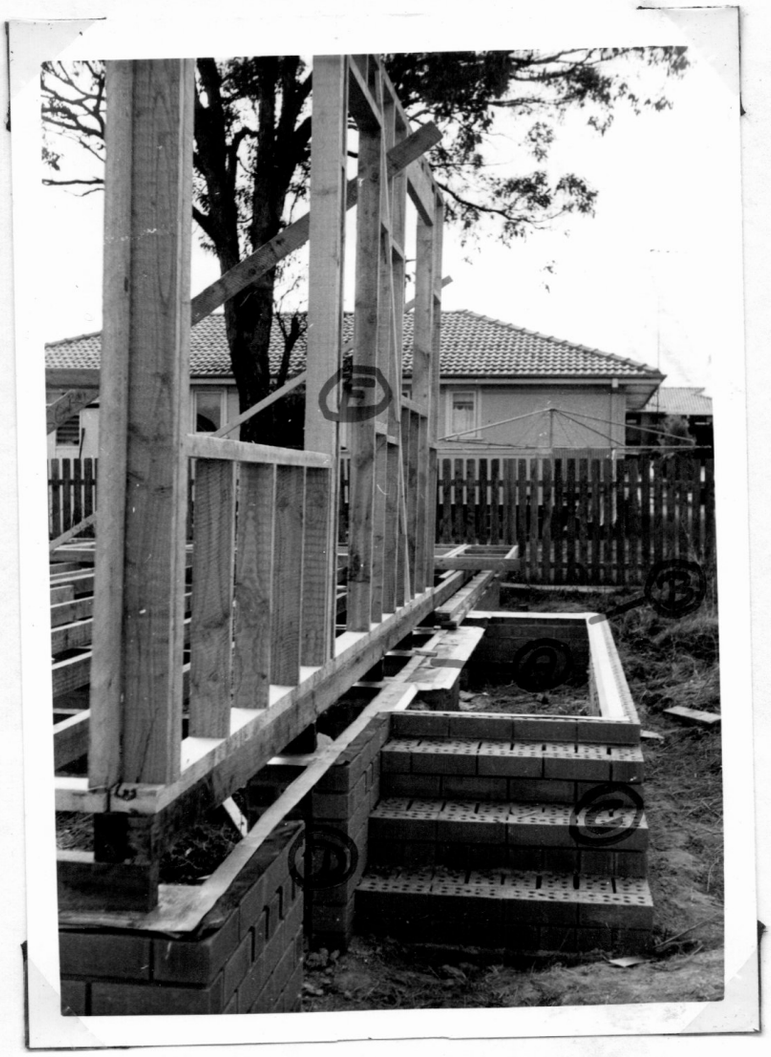
Photograph 16



This photograph shows the finished brick work of the rear verandah. The points shown are:

A: Corbelled brick work with ant cap and d.p.c.
B: Outer wall with ant cap and d.p.c.
C: Steps
D: Opening for entry to underside of floor timbers
E: Entrance to dining room (see plan).

Floor Timbers:

The floor timbers are all of hard wood and were measured and found to be in accordance with the requirements of Ordinance 71.

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Photograph 17

This photograph shows:

A: Isolated pier

B: Ant Cap

C: Over lapping bearers each measuring 4" x 3"

D: 4" x 2" joist

E: 4" x 2" bottom plate

F: 4" x 2" stud.

Photograph 18

This photograph shows a close up of the above. It can be clearly seen how the studs are housed into the bottom plates.

The bearers were found to be at 6' centres whilst the joists were at 18" centres.

Double joists were placed under all walls with a 1" space between them for external walls and 2" for internal walls. The ends of the joists were trimmed off on the outside only, the other ends lap alongside the joists from the next room.

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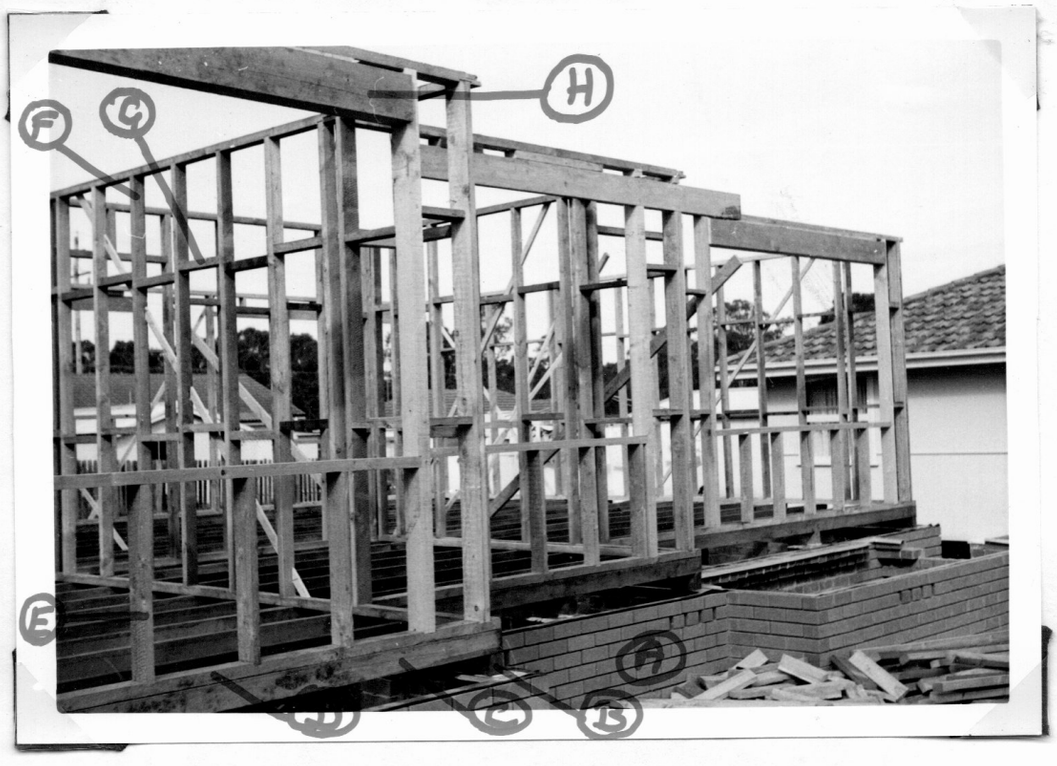
Erection of Timber Frame:

Photograph 19



This photograph shows the timber frame partially completed. The main features shown are:

A: Wall to floor timbers with air vents
B: Bearer
C: Joist
D: Bolton Plate
E: Jack Stud
F: Stud
G: Nogging
H: Head.

The method of construction of the timber frame walls is as follows.

The bottom plates (4" x 2") were set out and the top plates (4" x 2") laid directly over them. To keep the plates in position, temporary skew nails were used. The position of the studs was then nailed on the edges of the plates. These are spaced at 18" centres. Positions of door and window studs were also set out and marked. The temporary nails were then withdrawn and the lines squared off on the top of the bottom plate and the underside of the top plate. The depth of the housings were marked at $\frac{3}{8}$" and then cut.

Photograph 20

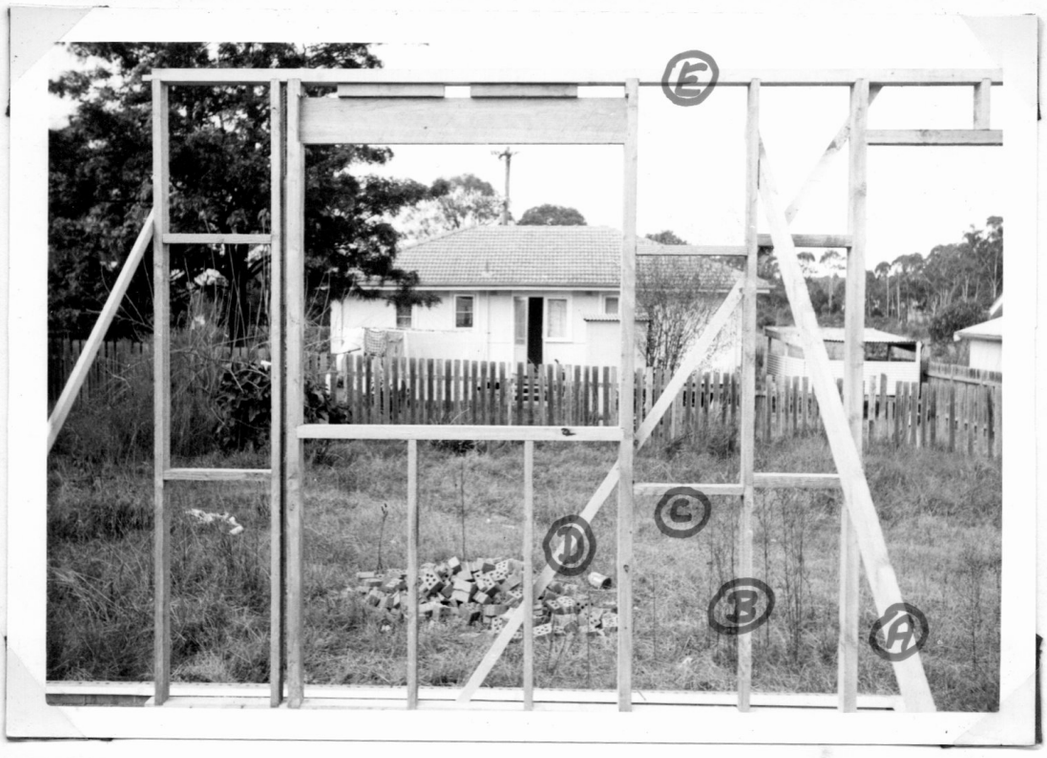
The above photograph shows:

A: Ant cap and d.p.c.
B: Bottom plate lying horizontally
C: Stud lying horizontally before erection.

As can be seen from photograph 20 the wall frames are assembled resting on floor joists, adjacent to their final position. The studs are laid out in position between the plates and each is then nailed into its pre-cut housed joint using two 3" nails at each end. Door and window studs and trimmers are also fixed.

.../20

Photograph 21



This photograph shows a section of the kitchen timber frame wall shortly after erection:

A: Temporary brace for support during erection
B: Stud
C: Nogging
D: Brace
E: Top plate.

The noggings are pre cut 18" lengths of 4" x 2" timber. They are nailed into position between the studs at about 3' from floor level and at about the same distance beneath the top plate. Each nogging is laid alternate to the next to allow fixing with two 3" nails.

The brace consists of 4" x 1" timber and is nailed into pre marked and housed joists.

When this is completed, the wall is then lifted into position. A plumb bob is hung at one corner to ensure the wall is vertical when secured to the other walls.

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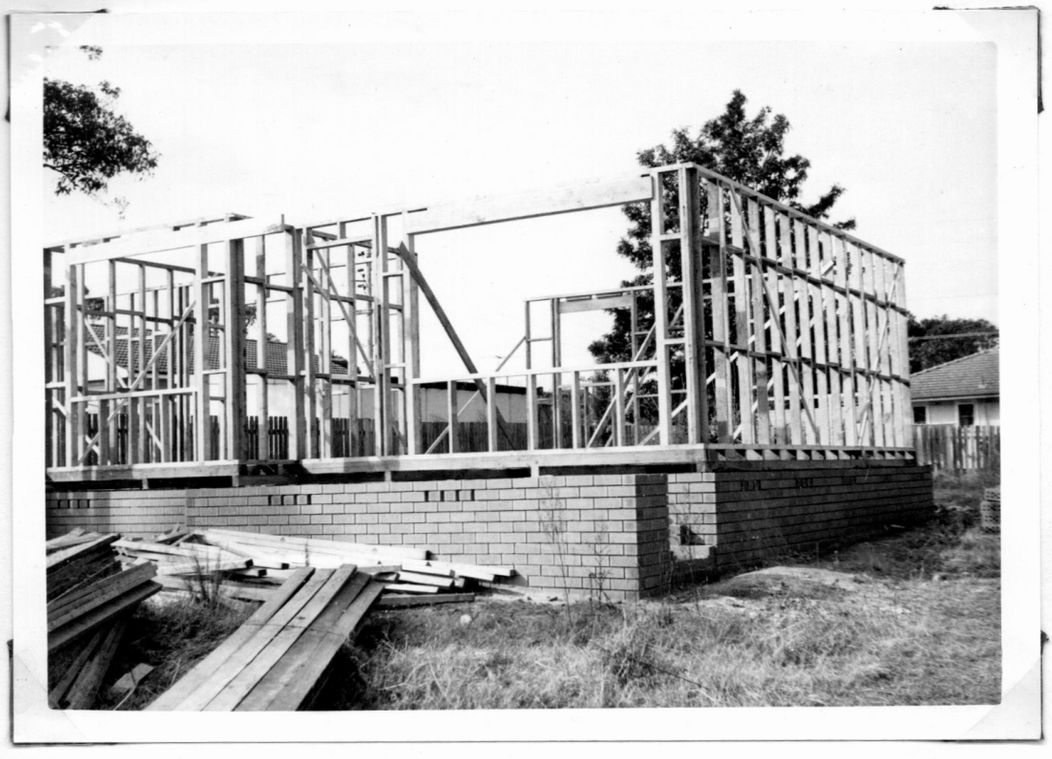
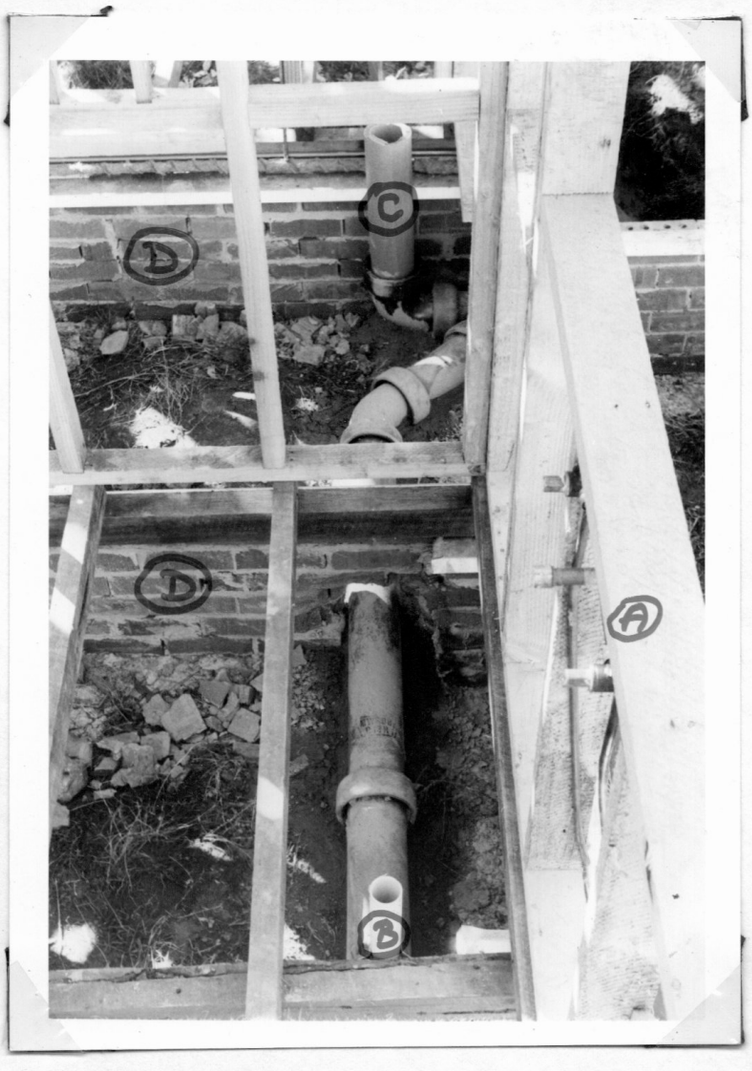


All external wall frames are erected as described whilst internal walls are built in situ. The above photograph shows the external frames near completion.

Plumbing:

Photograph 23



The above photograph is a general view of the ~~plumbing~~ internal drainage.

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in the kitchen and laundry of the dwelling:

A: Hot and cold water taps for kitchen sink
B: Kitchen sink drain to 4" diameter main
C: Laundry sink drain to 6" diameter main
D: Walls of laundry for support of 4" concrete slab.

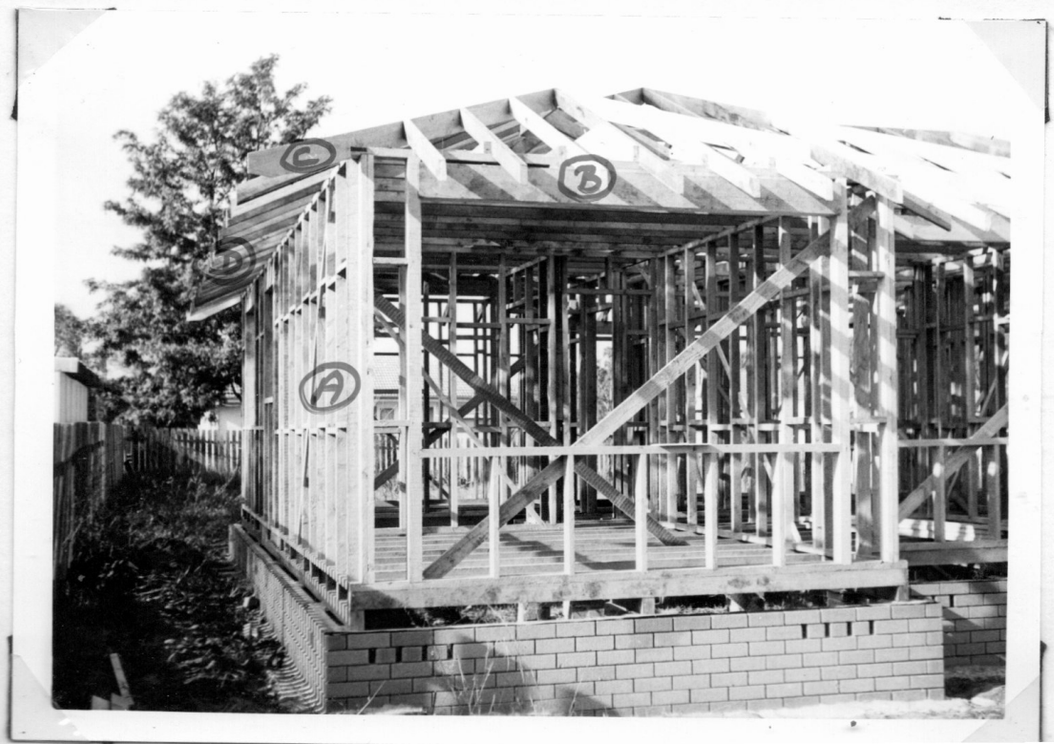
All plumbing was installed by a licensed plumber to the requirements of the M.W. S. & D. Board. This included connection to the main and installation of the meter. The service from main to boundary line was of 1" copper tubing. A stop clock was fitted on the service just inside the boundary and controlled the whole service in the building. Joints in the copper pipes were screwed and sweated.

Sewerage pipes were glazed earthern ware (see photograph 23) pipes 6" in diameter and cement jointed. These pipes had a minimum of 12" soil cover. All sewerage and sullage was connected to the sewerage pipes after passing through a system of traps which collect water and prevent sewerage gases seeping into the dwelling.

The requirements governing the installation of sewerage that is Part 3 Section 5 of the Water, Sewerage and Drainage Act were found to be adhered to.

Roof Timbers:

Photograph 24



This photograph shows the northern corner of the cottage with the timber frames and roof timbers near completion. The main points shown are:

A: Timber frame
B: Jack rafters
C: Hip
D: Eave overhang

At this point reference should be made to the plan at Appendix C which shows, by means of interrupted lines, the shape of the roof of the dwelling.

Photograph 25

This photograph was taken over the hall looking over the lounge room. It clearly shows the construction of the roof timbers and the following items may be seen:

A: Ceiling joists, 4" x 2" being 18" from centre to centre
B: Strut 3" x 3"
C: Purlin 4" x 3"
D: Rafter 4" x 2" being 18" from centre to centre
E: Collor tie 4" x 2"
F: Ridge 6" x 1"

The foregoing measurements were found to be in accordance with the requirements of Ordinance 71, Section 18(a)(i) and with the Specifications.

Photograph 26

The above photograph shows:

A: Hanging beam 7" x 1½"
B: Iron strap
C: Ceiling joist
D: Strut
E: Purlin.

Where the ceiling joist span exceeded 7' they were supported by hanging beams which were supported at either end by a wall of the dwelling. The above photograph shows how the hanging beam is attached to the joists by means of iron straps.

The ceiling joists were attached at their ends by nailing to the top plate by two 3" nails.

.../25

Photograph 26

The above photograph shows:

A: Hanging beam 7" x 1½"
B: Iron strap
C: Ceiling joist
D: Strut
E: Purlin.

Where the ceiling joist span exceeded 7' they were supported by hanging beams which were supported at either end by a wall of the dwelling. The above photograph shows how the hanging beam is attached to the joists by means of iron straps.

The ceiling joists were attached at their ends by nailing to the top plate by two 3" nails.

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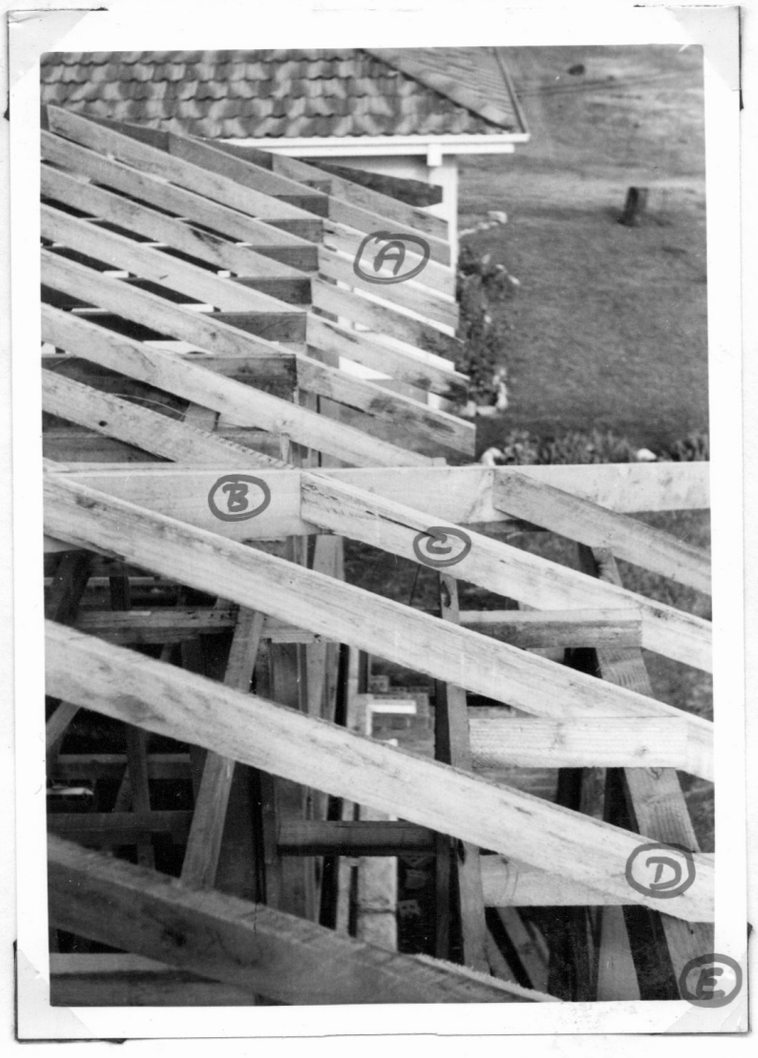
Photograph 27



The above photograph shows the positioning of the rafters in relation to the ceiling joists and walls of the building. The main points shown are:

A: Eave overhang and joining of ceiling joists and rafters
B: Hip
C: Jack rafter
D: Birdsmouth joint
E: Top plate.

The rafters were secured to the top plate by birdsmouth joints and skew-nailing. To obtain the correct pitch to the roof in this case 26^{o}, the rafters were precut to the required length and then nailed to the ridge which was held in position by temporary stresses.

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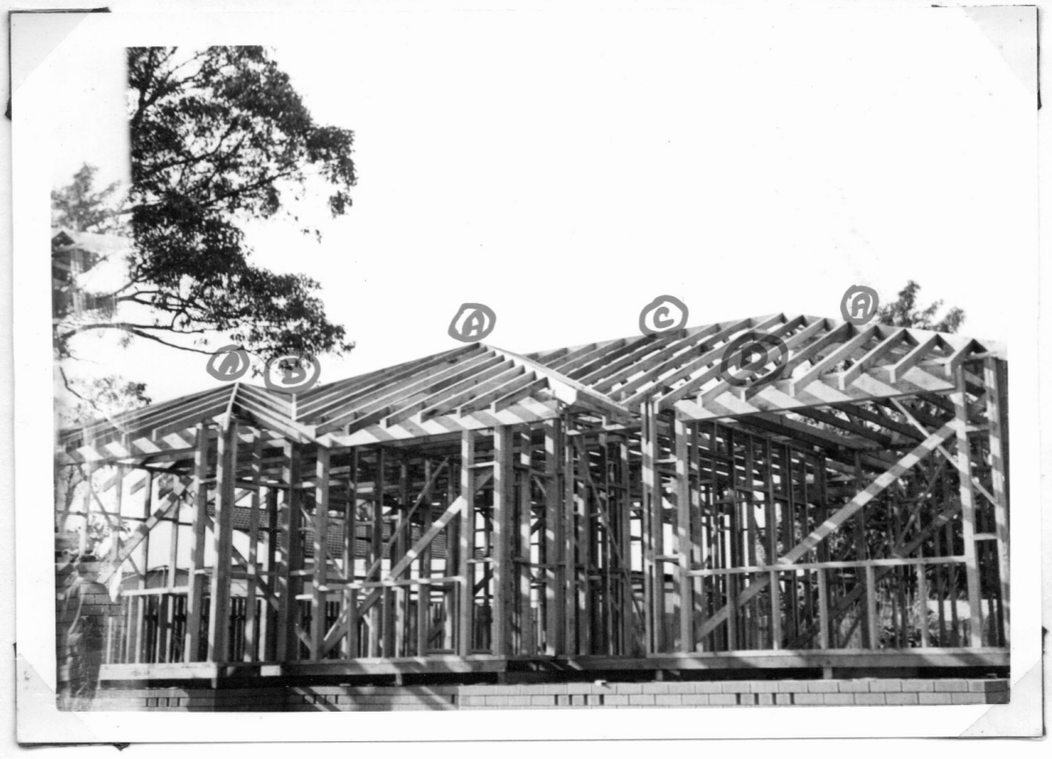
Photograph 28



This photograph shows the completed roof frame from the north-west of the site. The following is to be seen:

A: Hips

B: Valley

C: Ridge

D: Rafters

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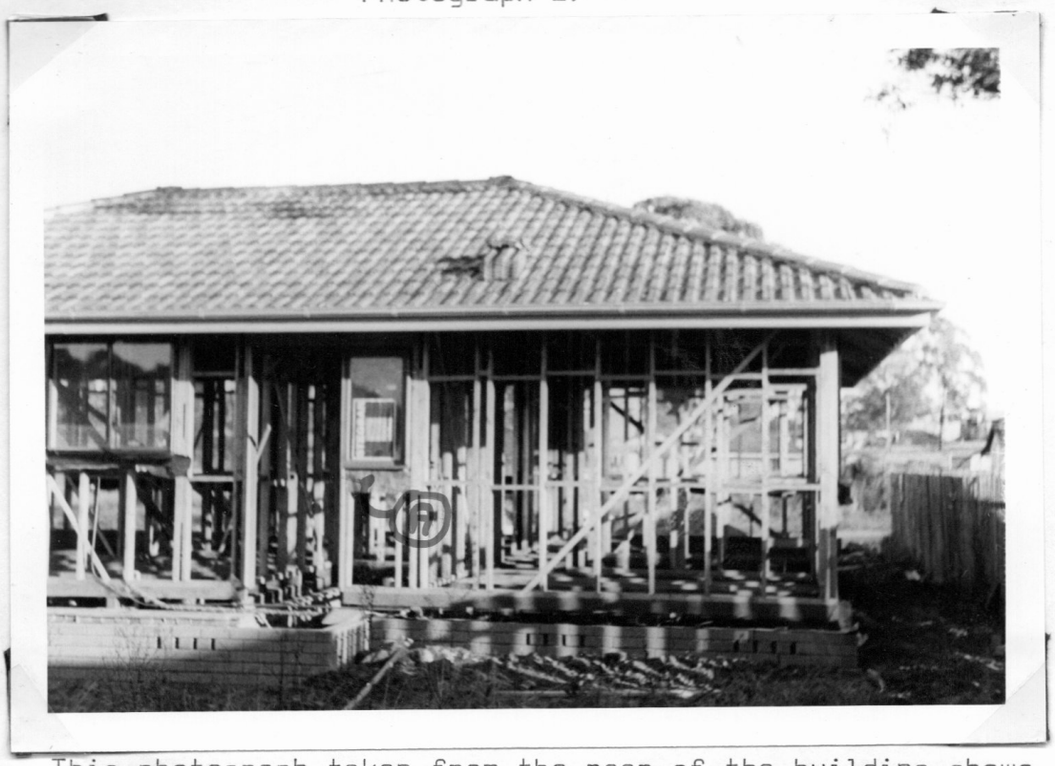
Photograph 29



This photograph taken from the rear of the building shows the tiling of the roof nearly completed.

"Stegbar" windows have been inserted in the timber frame and the flashings, marked A, can be seen hanging from them. These flashings are built into the external brick work as it is erected.

External Brick Wall:

Work on the external brick wall was commenced when the roof had been finally tiled.

The bricks were standard 9" x $4\frac{3}{8}$" x 3" cream texture Austral bricks laid in stretcher bond.

As the work proceeded, the window flashings were built into the brick work so that any water entering the inside of the wall would be deflected to its external side.

A gap of approximately 1" was left between the brick wall and the timber frame. Thus any water or moisture of the inside face of the wall would not affect the timber frame.

Wall ties, used to bond the brick work to the timber frame, were set at every fourth course 3' apart, that is 4 ties to every square yard of brick work. After the

ties were built into the brick work, they were bent up wards and nailed to the stud frame. This is done to prevent moisture seeping along the tie and dampening the timber frame.

Cement was used in all brick work up to the damp proof course level and cement mortar and lime for the veneer walls.

Photograph 30

This photograph shows the building prior to the construction of the veneer wall. The necessary bricks and sand required for the purpose may be seen in the foreground.

Photograph 31

This photograph shows the completed building with the roof fully tiled, the veneer wall completed and the eaves boxed.

Reference should be made to photographs 22 and 28 which were taken at a similar angle to the one previously. The three photographs clearly illustrate the various phases of construction.

The following is a summary of work done inside the building to bring it to completion:

Electrical:

All electrical wiring and points were installed to comply with S.A.A. rules and the requirements of the Local Supply Authority.

12 light positions together with switches were installed. Each was provided with a 40 watt bulb.

8 power points were also installed.

A 45 gallon hot water system using mains pressure was installed in the roof area over the kitchen. The load was borne upon an internal wall.

A cooking stove comprising three plates and an oven was installed in the kitchen (see plans).

Plumbing:

The installation of plumbing has been described in Part III of this report.

However, it should be noted that special provision was made for the floors of the bathroom and laundry.

In each case, the floors were constructed of 3,000 lb. pressure mix concrete 5" thick. This type of floor was used because of the higher load potential and the effect of dampness on floor timbers.

All P.C. items were installed to comply with the Specification (see Appendix B).

Flooring:

The floor boards comprising 3" x 1" Cypress Pine were laid in each room except where stated above.

The precut boards were finished so that they could be laid in "tongue and groove" fashion.

Once all the floors had been laid, they were machine sanded.

Internal Wall Linings:

The internal walls were lined with $\frac{3}{8}$" thick Gypsum plaster board.

These boards were fixed horizontally by nailing to the studs with nails having large flat heads.

The ceiling was finished by the same method.

~~Carpentry~~: Joinery

Door jambs were assembled on the site and then fixed in position.

Architraves were measured and cut in a mitre box. The two uprights were cut and placed in position whilst the third piece was measured and nailed from the uprights before cutting in the mitre box.

Window architraves were fixed in the same manner.

The skirting board was nailed with 2" nails to every stud.

Painting:

All exposed woodwork was prepared and given one undercoat and finished with "Forestwood Gloss".

The wall linings were first varnished with a base sealer and finished with two coats of flat plastic paint. The colour used was an off-white beige.

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Tiling Finishes:

A tiling finish of ceramic glazed tiles was given to the bathroom to a height of 4' and to the shower recess to a height of 6'.

Tiling was also used in the kitchen around the sink and stove areas.

Additionally the floors of the bathroom, shower recess, w.c., and laundry were all finished with selected unglazed tiles.

The following is a summary of work carried out to the exterior of the dwelling on completion.

Fencing:

This site was already fenced before commencement and no fence was placed on the frontage of the site.

Gutters:

All the guttering was cleaned out and checked for serviceability.

Surrounding Land:

The site not occupied by the building was cleaned of all refuse and all remaining weeds and parasitic shrubs.

The area was rolled flat in preparation for grass seeding by the new owner.

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PART V: C O N C L U S I O N

This assignment was an interesting exercise and it was pleasing to see that all work carried out was in accordance with the requirements of the various authorities.

However, a few minor faults attracted my attention during the construction of the building:

1. Before work was commenced on the footings the area was not sufficiently cleared of weeds, grass and shrubs. (See photograph 2.)

2. In two places when the footing trenches were dug, the required depth was not reached by a matter of perhaps 1" - 1½". Additionally in some cases, the sides of the trenches were irregular thus causing the use of more concrete than would normally be required.

3. The area beneath the floor timbers was not fully cleared of wood chips and other debris prior to the laying of the floor boards.

These points were, in my opinion, of a minor nature and would not materially affect the quality of the building.

Photograph 32

This photograph shows the completed building before the final clean-up of the surrounding site.

The building was well finished and the quality of workmanship high. It had a pleasing appearance and was functional in both design and potential habitability.

On completion the building was placed on the market for sale at a price of $18,000. This price was similar to that being asked for other brick veneer cottages in the area and reflects, I believe, a fair price for the land and the building.

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JULY, 1975.

POST SCRIPT

Due to delays caused by strikes and bad weather, it was not possible to take as many photographs as would have been liked during the latter stages of the construction period.

ACKNOWLEDGEMENTS

The opportunity is taken to express my thanks to the following, without whose assistance the final preparation of this report would have been impossible:

Miss J. Sykes
Herald Homes Pty. Limited
Harvey Prior Limited
Messrs. Richard Ellis, Sallmann & Seward.

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A P P E N D I X A

LIST OF ILLUSTRATIONS

PART I:

1. View of site from north west.

PART II:

2. View of site with trenches dug.
3. Footing trenches and reinforcement.
4. Footing re-inforcement with stirrup.
5. Footings poured.
6. General view of poured footings.
7. Preliminary brick work.
8. General view of isolated piers.
9. Isolated pier (close up).
10. Air vent (close up).
11. Air vents (general views).
12. Isolated pier and floor bearer.
13. Damp proof course and vermin proofing.
14. General view of rear verandah.
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17. Floor timbers.
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20. Construction of timber frame wall.
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A P P E N D I X B

SPECIFICATION

FOR THE

ERECTION OF A BRICK VENEER HOUSE

AT

LOT 58, LAMONT STREET

WINDSOR.

SPECIFICATION No. 54083

FOR

ERECTION OF A BRICK VENEER HOUSE

(IN ACCORDANCE WITH COTTAGE CONSTRUCTION STANDARDS PRESCRIBED BY THE CO-OPERATIVE BUILDING ADVISORY COMMITTEE)

Dwelling at Lot 58 Lamont Street

Municipality/Shire of Windsor

for

Mr. _____

Builder—Mr. Herald Homes Pty. Ltd.

Box 115, P.O., Street,

Blacktown

Date for Completion _____ 19____

This is the Specification referred to in the Contract dated _____

between _____ as Owner

and _____ as Builder

ISSUED BY THE REGISTRY OF CO-OPERATIVE SOCIETIES, SYDNEY

P 27051 K6179 [20c]

NOTE.—It is necessary to complete Specification in full. All blank spaces should be filled in and specified works not applicable struck out.

SPECIFICATION

FOR THE

Erection and Completion of a Brick Veneer House on Lot No. _____

_____ Street, Municipality/Shire of _____

for Mr _____. (Hereinafter called the Member.)

The Member must ensure that the whole of Works and Services are performed by the Builder in accordance with this Specification and the relative drawings and completed to the satisfaction of the Society or its duly appointed Representative.

BUILDING PERMIT
MUNICIPALITY OF WINDSOR
Permit No. 162/72
Date Approved 13/4/72
Building Inspector.

GENERALLY

Definitions.—Society: The word "Society" in this specification means the _____

_____ Co-operative Building Society Limited, whose address is _____

_____

Member: Means Mr _____ or his appointed agent.

Provide: Means the supply and complete building in of specified materials, fittings, etc.

Approved: Means approved by the Society, unless specially stated to the contrary.

Regulations and Notices.—The Builder is to comply with the N.S.W. Building Ordinance No. 71 and/or any amendments thereto; the requirements of Legally Constituted Authorities for Local Government and/or for services. The Builder is to give all Notices, obtain all Permits and pay all Fees required by such Authorities.

Insurance.—Insurance of the works against fire will be effected by the Member. The Builder shall at his own expense adequately insure against Public Risk and arrange indemnification in respect of his liability under the Workers' Compensation Act of New South Wales.

Visit the Site.—Builders tendering are to visit the site and satisfy themselves as to the nature and extent of works, the facilities available and the difficulties entailed in execution of the said works.

No extra amount above the accepted contract price will be allowed because of work arising owing to neglect of this precaution.

Labour and Materials.—The Builder is to provide all labour, material, fittings and plant required to construct and complete the building. Materials to be the standard specified. Workmanship in each trade to be performed by tradesmen of that particular trade and in conformity with current good building practice.

Set Out.—The Builder is to set out and maintain the works in accordance with the drawings. Figured dimensions on plans are to be taken in preference to scale measurements.

Plans and Specifications.—Any work indicated on plan but not in the specification or vice versa, and any item not shown in either plan or specification but which is obviously necessary as part of proper construction and/or finish is to be considered as so shown or specified and is to be done as part of the contract.

Variations to plans and/or specifications may not be made without the written consent of the Society. Substitute materials and/or methods may be used if approval, in writing, is given by the Society.

Plans on Job.—The Builder must at all times maintain on the job a legible copy of the plans and specifications, bearing the approval of the Municipal Authority concerned.

Inspections required by the Society.—The building is to be inspected by the Society's Representative at the following stages of construction and the Builder is to give the Society and Member at least two (2) clear working days notice that inspections are required:

1. When trenches for footings have been prepared or rock surfaces scabbled, and, in the case of reinforced concrete footings, when reinforcement and depth pegs have been placed in position just prior to placing of concrete. Footings must not be commenced until the trenches have been inspected and approved by the Society's Representative.
2. On completion of floor, wall, and roof framing with noggings in position and veneer walling, but before flooring is cut down, roof covering is laid and wall linings and sheetings are secured.
3. When the internal wall coverings have been secured and fixing out commenced. Apron mouldings must not be fixed until flashings have been inspected and approved.
4. On completion of building.

The Member is cautioned that if works have advanced beyond these stages without the requisite notice being given and unsatisfactory conditions are discovered later, the offer of the loan may be withdrawn or the terms and conditions varied.

EXCAVATOR

Site.—Clear the building site and grub all stumps, roots, etc., to a minimum distance of 10 ft outside the building line or to the boundaries of the allotment, whichever is the less. Fill any depressions within the area covered by the building.

Trenches.—Excavate for all footings for walls, piers, etc., to a depth necessary to secure solid bottoms and even bearing throughout, and so as to provide for the tops of footings to be not less than 3 inches below natural ground level. Bottoms of excavations are to be level and stepped as necessary.

At completion of foundation walls and piers, etc., all excavations are to be filled, well rammed to ground level and surplus soil spread as directed.

Solid Floors.—(Externally only)—Grade and ram to receive concrete floors of W.C. or E.C. and _____ _____ where shown on ground level.

CONCRETOR

Concrete mixed on the site is to consist of:

4 parts ¾ in gauge blue metal or other approved aggregate;
2 parts clean sharp sand;
1 part fresh Portland cement;
a sufficiency of water.

All proportions are to be properly gauged and the concrete is to be thoroughly mixed and placed in position immediately after mixing.

Ready mixed concrete may be used provided that, when tested at 28 days, it has the following minimum strengths:

2500 lb per sq in for concrete in footings,
2000 lb per sq. in for concrete pavings on solid ground,
3000 lb per sq. in for concrete used elsewhere.

The concrete shall be supplied by an approved firm and delivery dockets are to be kept on the job for sighting by Member and the Society's Representative.

Footings.—Provide concrete footings 18 in x 10 in thick under 4½ in brick walls shown on plan.

Set footings centrally under walls and overlap for a distance of 18 in where steps occur. Increase the width of footings under all engaged piers so as to maintain the same offsets at these parts.

Reinforce the footings with four ½ in diam. mild steel rods *or* six ⅜ in diam. mild steel rods; in each case equally distributed in two layers and tied with annealed wire to ¼ in diam. mild steel stirrups spaced at 3 feet centres, *or* two layers of No. 307 hard drawn steel fabric to A.S.A84 (No. 7 mesh), having 6 longitudinal wires in each layer, tied to ¼ in diam. mild steel stirrups spaced at 3 feet centres.

Reinforcement is to be continuous in footings, shaped to stepping and/or hooked, and lapped at least 18 in at all joints and full width of layers at intersections and tied with annealed wire.

Set the respective layers of reinforcement 1½ in from top and bottom of concrete and 1½ in from sides to the nearest longitudinal rod, or wire.

Footings under chimney are to be similarly provided.

Concrete Floors.—Provide concrete floors, a minimum thickness of 4 in, to Bathroom, Laundry, Porch, Terrace, W.C., E.C. and _____.

All concrete floors within the building are to be reinforced and suspended with a minimum bearing of 4 in on brickwork on at least two opposite sides.

Reinforce the concrete to the full area with ⅜ in diameter mild steel rods laid in both directions to form 9 in x 9 in mesh, tied with annealed wire at intersections and set 1 in above bottom of concrete or with No. 602 hard drawn steel reinforcing fabric complying with AS A84 set 1 in above bottom of concrete.

Or

Compressed Asbestos Cement Sheets Floors—Provide compressed asbestos cement sheet flooring, of ¾ in thickness and with a density of not less than 116lb. per cub. ft. to Bathroom, Laundry, Porch, Terrace W.C., E.C. and _____ _____

Compressed asbestos cement sheets are to be fixed strictly in accordance with the manufacturer's instructions to floor joists spaced at maximum of 18 in centres.

Compressed asbestos cement sheets to floor of _____ to be left ready for fixing of tiles as specified in 'Tile Layer',

Concrete floors of detached Laundry, W.C., E.C. _____ are to be laid on levelled solid ground.

Screed the concrete with a fall to outlets, or level as required, and render the surfaces to floors of _____ _____ in one operation to a minimum thickness of ¾ in with two parts blue metal screenings and one part fresh Portland cement; trowel to a smooth and even surface.

Concrete to floors of Bathroom to be left ready for fixing of tiles as specified under "Tile Layer".

Hearth.—Provide 3 in thick hearth on brick walls and/or corbel courses by Bricklayer.

Concrete is to be reinforced as for floor slabs and the top is to be left ready to be finished with _____

_____.

Paths.—Provide paths as indicated on plan. Concrete is to be as previously specified and be surfaced with a wooden float.

Excavate for and lay paths to even grades, true lines and curves. Path to front entrance is to be 30 inches wide; to rear entrance 21 in wide and to W.C. or E.C. 18 inches wide.

Car tracks are to be a minimum of 4 in thick and other paths a minimum of 3 inches thick.

Provide expansion joints in the paths at a maximum spacing of 4 feet with bitumen impregnated felt jointing strips the full thickness of concrete with rendering V-jointed above same.

BRICKLAYER

Materials

Bricks.—To be hard, sound and well burnt clay and shale of the class hereinafter specified. Those used for exposed faces to be picked for colour and fair arris.

Face bricks of approved colour to be used for all wall and piers to exposed elevation/s and _____.

Common bricks may be used for all other work.

Sand.—To be clean, sharp and free from impurities.

Cement Mortar.—To be one part fresh cement to 3 parts sand.

Lime Mortar.—To be one part lime to 3 parts sand. Lime to be well slaked before use.

Compo Mortar.—To be one part cement, one part lime and 6 parts sand.

Generally

All bricks to be well wetted before laying.

Footing courses to be grouted solid with cement mortar.

All brickwork to be properly bonded; laid on full bed and all perpends filled.

All piers are to be built solid and each course grouted as the work proceeds.

Carry up all work true and plumb to even gauge and in level courses—the full height and thickness required.

The brickwork faces to exposed elevation are to be finished with neatly raked _____ joints.

Finish all other exposed brickwork faces with neat struck joints.

Build the following in Cement Mortar:

All brickwork to level of underside of floor bearers;
All 3 in thick brickwork;
Brick steps; wing walls and brick balustrade walls;
Brick load bearing piers.
Retaining walls.
Brick fences and/or brickwork under timber fencing.

Build in Compo Mortar:

All other brickwork.

Footings.—Brick walls and piers are to be on footings as described below. Footings are to be on level foundations, stepped and lapped as required.

Under walls 4½-in thick footings are to be a minimum of 2 courses of 18 in and one course of 14 in brickwork.

For every increased thickness of walls, including the provision of engaged piers, the width of footings is to be increased proportionately and so as to maintain the same offsets throughout.

Under sleeper piers, 9 in x 9 in, up to 5 feet high, footings are to be 2 courses of 14 in work; where height of pier exceeds 5 feet, footings are to be 2 courses of 18 in work.

Foundation Walls.—On footings as previously specified build brick walls to the thickness shown on plan up to the level of underside of floor bearers and/or plates. Bond engaged piers into all brick walls at abutment of internal partition walls and intermediately at maximum spacing of 6 feet centres to support floor bearers. All in cement mortar.

Sleeper Piers.—Provide 9 in x 9 in brick piers on footings as already specified, spaced at a maximum of 6 feet centres and so as to be directly below all timber framed walls not shown on plan as being above brick walling or other supports.

Where piers exceed 5 feet in height the lower additional portion is to be 14 in x 14 in and footings to be 2 courses of 18 inch work.

Floor Level.—To comply with drawings, and so as to provide not less than 8 inches from ground surface at any part to underside of ground floor bearers.

Access.—Provide access under floors as shown on plan.

Ventilation.—Air vents 9 in x 6 in are to be built into external walling, at a height immediately under the bearers. The vents are to be spaced at not more than 6 feet apart and at least two vents are to be provided to each room.

Similarly, vents are to be provided under verandah floors and suspended concrete floor slabs. No section of the under-floor area should be constructed in such a manner that it will hold pockets of still air.

Dampcourse.—On all brickwork, at level not higher than bottom of floor bearers, provide a continuous run of approved dampcourse material.

To the brick walls of bathroom and _____, as shown on plan, provide an additional run of dampcourse at a level not higher than one full course above the top of concrete floor.

Dampcourse material is to be in long lengths, lapped 6 inches at joints and full width at all intersections.

Ant Capping.—To all brickwork and piers, at the level of underside of floor bearers or as may be directed by the Society's Representative, ant capping of 26 gauge galvanised steel or other approved metal is to be set, projecting 1½ in beyond the internal faces of all brickwork and turned down at 45° angle, lapped ½ in and soldered or folded at all joints and corners so as to provide a continuous and effective barrier against termites throughout the entire length of the material.

Vermin Proofing.—Provide ½ inch mesh galvanised birdwire, to be built into brickwork and taken across cavity and secured to bottom plate. All mortar droppings are to be removed, before internal linings are fixed.

Veneer Wall.—To be 4½ inch brickwork built in compo mortar from foundation walls.

Allow for internal faces of veneer walls to be 1½ inches from timber wall frames.

Build in No. 10 gauge galvanised wire ties opposite every alternate stud—commencing at four courses above level of bottom plate and thereafter every fourth course. Leave ties open for attachment to studs.

Mortar joints on inside faces of walls are to be flush with brickwork.

Set _____ x 1½ in terrazzo or _____ thresholds to external doorways to receive door frames.

Arch Bars and Angle Irons.—Brickwork over openings is to be supported on mild steel bars or angles of the sizes as shown below.

For spans up to 4 ft provide one 3 in x ⅜ in bar.

For spans 4 ft 1 in to 5 ft provide one 3 in x 3 in x ⅜ in angle.

For spans 5 ft 1 in to 8 ft provide one 5 in x 3 in x ⅜ in angle.

For spans 8 ft 1 in to 10 ft provide one 6 in x 3 in x ⅜ in angle.

Flashings.—Build in all flashings under window frames and above openings as described under "Joiner".

Provide all necessary weep holes.

Sills.—Provide _____ bricks to sills of all window openings.

Fireplace and Chimney.—Provide footings of reinforced concrete—or bricks in cement mortar—a minimum of 4½ inches wider all round than brickwork above.

Build 4½ inch brick walls and/or corbel courses to support hearth.

Provide fireplace and chimney in position as shown on plan with fireplace opening to the dimensions indicated. Brickwork over openings is to be supported on mild steel bars or angles of suitable sizes and with 4½ inch bearing at each end.

The chimney stack is to be not less than the height of the main roof ridge and is to be built in compo mortar. The flue is to be 9 in x 9 in or one-tenth of the area of the fireplace opening, whichever is the greater, gathered over to break daylight and pargetted to the full height.

A 24 gauge galvanised steel tray, in one piece, holed for flue, is to be set at level of one course above roof covering on the low side of the roof. The internal edges are to be shaped to form a quadrant gutter 1 inch wide, sweated at corners. The tray is to project a minimum of 1 in beyond the external faces of brickwork, turned up and/or down as required. Where the tray is turned up, a clearance of at least ¼ inch is to be maintained between the brickwork and tray.

Provide weep holes by leaving open vertical joints in brickwork above tray.

Rake joints in brickwork ready to receive flashing to be provided by "Plumber".

A loose brick must be left in the back of the chimney stack. This brick must not be set until after the tray has been cleared of all mortar droppings and approved by the Society's Representative.

Brickwork from floor to mantel level is to be built with _____ bricks with _____ _____ joints.

Steps.—Provide as shown on plan, and/or required by the slope of the land, in bricks to match other adjacent brickwork. To be built in solid work or, where side walls are provided, on well consolidated filling. Treads are to be brick-on-edge, or precast concrete units, a minimum of 12 inches wide with risers a maximum of 6½ inches.

Build side walls as shown in 4½ inch brickwork on footings of 2 courses of 9 inch brickwork.

Other Works.—Provide all necessary brickwork for the following in positions indicated on plan and to the dimensions shown: Retaining walls, Flower boxes, Terraces, Balustrade walls, Garage, Laundry, E.C., W.C., Front fence and _____.

Wait upon and make good after other tradesmen.

Replace all defective or damaged bricks, point up faulty joints.

Clean all exposed brickwork with diluted spirits of salts, wash down with clean water and leave free from cement and mortar stains.

CARPENTER

Generally.—Timber shall comply with the provisions of the Timber Marketing Act, 1945 (as amended), and be of the class specified; reasonably straight grained and free from those defects which might affect its durability and/or strength. Scantlings to be in long lengths, accurately cut and fitted, well spiked and securely fixed.

Floor Framing.—All floors not specified to be concrete are to be framed at level shown with Hardwood _____. Plates and bearers are to be laid true and level. Packing is not permitted.

Provide 4 in x 3 in plates and/or bearers set on edge on walls and piers as already specified at maximum 6 feet centres.

Provide 4 in x 2 in joists (with double joists under walls) set on edge at a maximum 18 in centres and fix to plates and/or bearers by double nailing at each crossing. Underside of joists to be checked out, as necessary over plates and bearers to enable tops of joists to be finished true and level.

Provide _____ in x _____ in Hardwood/Oregon joists at 18 in centres over _____ where shown on plan. Unsupported spans exceeding 9 feet to have 2 in x 2 in herringbone strutting spaced at maximum of 6 feet centres. No span to exceed 20 feet.

Trim floor timbers as required around chimney and hearth.

Wood Preservative.—All hardwood plates, bearers and joists in ground floor construction are to be treated before fixing, with an approved pest resisting and wood preserving compound on all faces and ends, except tops of joists.

Wall Framing.—Plates are to be checked out to a depth of ⅜ in to receive studs. Each wall section is to be diagonally braced and studs are to be checked out so as to receive braces which are to finish flush with the faces of studs.

Wall framing is to be seated on top of floor joists; erected plumb and straight, and securely fastened at all parts.

Provide a clearance of 1½ inches between the outer wall frames and internal face of brick veneer walls. These frames are to be secured to the veneer walls by stapling the galvanised wire ties—already specified under "Bricklayer"—to the studs. These ties when secured in position are to incline slightly downwards from studs to veneer walls.

All timber in wall framing is to be Canada Pine / N.Z. Douglas Fir

Vermin and top plates.—To be in long lengths and scarfed at joints and intersections.

For 4 in studs to be 4 in x 2 in.

For 3 in studs to be 3 in x 2 in.

Studs.—To external and internal walls 4 in x 1½ in or 3 in x 2 in spaced at a maximum 18 inch centres.

Provide 3 studs at all wall angles and intersections, well blocked and securely fastened together.

To each side of openings up to 6 feet wide, studs are to be 2 inches thick.

To each side of openings over 6 feet wide studs are to be 3 inches thick.

Studs are to be checked to receive heads over openings and trimmers under window

Heads.—To be not less than Standard Grade Hardwood or Standard Engineering Grade Oregon and have a stress grade of 1250f or better.

All heads are to be checked or housed into studs and be not less than the sizes indicated below.

Where supporting conventional roof construction:

Span	For Tiled Roof Construction	For Sheet Roof Construction (Metal or Asbestos Cement)
4 ft	3 in x 3 in or 4 in x 1½ in	2 in x 3 in
5 ft	5 in x 2 in or 4 in x 4 in	4 in x 1½ in
6 ft	7 in x 2 in or 6 in x 2½ in	5 in x 2 in or 4 in x 4 in
7 ft	8 in x 2 in or 7 in x 2½ in	6 in x 2 in or 5 in x 4 in
8 ft	9 in x 2 in or 8 in x 2½ in	7 in x 2 in or 6 in x 3 in
9 ft	10 in x 2 in or 9 in x 3 in	8 in x 2 in or 7 in x 3 in
10 ft	11 in x 2 in or 10 in x 3 in	9 in x 2 in or 8 in x 3 in

Where supporting roof trusses spaced at 3 ft centres:

Span	Span of Truss		
	20 ft	25 ft	30 ft
	For Tiled Roof Construction:		
4 ft	5 in x 2 in or 6 in x 1½ in	6 in x 2 in or 7 in x 1½ in	6 in x 2 in or 7 in x 1½ in
5 ft	7 in x 2 in or 6 in x 2½ in	7 in x 2 in or 6 in x 3 in	8 in x 2 in or 7 in x 3 in
6 ft	8 in x 2 in or 7 in x 3 in	9 in x 2 in or 8 in x 3 in	9 in x 2 in or 8 in x 3 in
7 ft	9 in x 2 in or 8 in x 3 in	10 in x 2 in or 9 in x 3 in	11 in x 2 in or 10 in x 2½ in
8 ft	11 in x 2 in or 10 in x 3 in	11 in x 2 in or 10 in x 3 in	12 in x 2 in or 11 in x 3 in
9 ft	12 in x 2 in or 11 in x 3 in	12 in x 2 in or 11 in x 3 in	13 in x 2 in or 11 in x 3½ in
10 ft	13 in x 2 in or 11 in x 3½ in	12 in x 3½ in	13 in x 3 in
	For Sheet Roof Construction (Metal or Asbestos Cement)		
4 ft	4 in x 2 in	4½ in x 2 in or 4 in x 2½ in	4½ in x 2 in or 4 in x 3 in
5 ft	5 in x 2 in or 4 in x 4 in	6 in x 2 in or 5 in x 2½ in	6 in x 2 in or 5 in x 3 in
6 ft	6 in x 2 in or 5 in x 4 in	7 in x 2 in or 6 in x 2½ in	7 in x 2 in or 6 in x 3 in
7 ft	7 in x 2 in or 6 in x 3 in	8 in x 2 in or 7 in x 2½ in	8 in x 2 in or 7 in x 3 in
8 ft	8 in x 2 in or 7 in x 3 in	9 in x 2 in or 8 in x 2½ in	9½ in x 2 in or 8 in x 3 in
9 ft	9 in x 2 in or 8 in x 3 in	10 in x 2 in or 9 in x 2½ in	10½ in x 2 in or 9 in x 3 in
10 ft	10 in x 2 in or 9 in x 3 in	11 in x 2 in or 10 in x 2½ in	11½ in x 2 in or 10 in x 3 in

Bracing.—Diagonal braces to be 2 in x ¾ in to each wall section.

Nogging.—To be width of studs x 1½ inch thick, and be provided at chair rail and door head levels. Skirting blocks of the same section as bottom plates and not less than 9 in long, to be spiked to plates.

Roof Framing.—Roof timbers are to be seated on timber wall framing.

Pitch of roof is to be as shown on plan and length of rafters to longest ridge is to be gauged to suit full tile courses.

Rafters to be birdsmouthed over plates; accurately cut and fitted, positioned beside ceiling joists and, together with all other timbers used in roof construction, are to be secured by double nailing at all parts where practicable.

Roof timbers to be of dimensions as under:

Ceiling joists.—4 in x 1½ in Hardwood or 4 in x 2 in Oregon, at maximum 18 inch centres. Fix trimmers to ceiling joists where required at 18 inch centres. Where two lengths of joists are used they are to be lapped and well spiked over partition walls. All to be dogged to hangers. Ceiling joists—where practicable—are to be at right angles to ridge.

Hangers.—To be provided so that the unsupported length of ceiling joist does not exceed 7 feet, double nailed to each ceiling joist and secured to side of rafters wherever practicable.

	Hardwood	*Oregon*
Up to 10 ft span	7 in x 1½ in	8 in x 1½ in
10 ft 1 in to 12 ft	8 in x 1½ in	9 in x 1½ in
12 ft 1 in to 14 ft	9 in x 1½ in	10 in x 1½ in
14 ft 1 in to 16 ft	10 in x 1½ in	11 in x 1½ in

Where length of hanger exceeds 16 feet the hanger is to be supported by a beam as for Strutting Beams and the size of hanger is to be governed by new span. (Roof not to be strutted off hangers or beam supporting hanger.)

Rafters.—Tiled roof 4 in x 1½ in Hardwood or 4 in x 2 in Oregon at maximum 18 inch centres.

Profiled corrugated metal roofing 4 in x 1½ in Hardwood or 4 in x 2 in Oregon at maximum 36 in centres.

Corrugated asbestos cement roofing 4 in x 1½ in Hardwood or 4 in x 2 in Oregon at maximum 24 in centres.

Ridges and Hips.—6 in x 1 in.

Valleys.—6 in x 1½ in.

Purlins.—Tiled roof 4 in x 3 in at maximum spacing of 7 feet.

Corrugated roofing 4 in x 2 in at maximum spacing of 7 feet.

Collar Ties.—To be fixed to alternate pairs of rafters or as directed by the Society's Representative and be to the following sizes:

Up to 14 feet span—3 in x 2 in Hardwood or 4 in x 2 in Oregon.

Over 14 feet span—4 in x 2 in Hardwood or 5 in x 2 in Oregon.

Struts.—To be not less than 3 in x 3 in up to a length of 7 feet, spaced under purlins at maximum of 7 feet centres.

Struts must be seated on, or directly above, walls and must be tightly fitted and securely fastened.

Strutting from ceiling joists or hangers will not be permitted. Where Strutting Beams are required they are to be the size shown hereunder and when placed in position are to be packed up from the walls so as to be ½ inch above the level of ceiling joists.

	Hardwood	*Oregon*
Up to 10 ft span	7 in x 3 in	8 in x 3 in
10 ft 1 in to 12 ft	8 in x 3 in	9 in x 3 in
12 ft 1 in to 14 ft	9 in x 3 in	10 in x 3 in
14 ft 1 in to 16 ft	10 in x 3 in	11 in x 3 in

Strutting beams must not be used as hangers for ceiling joists nor to support hangers.

Roof Trusses.—Timber roof trusses manufactured by _____ and approved by the Society are to be spaced at _____ centres and fixed in accordance with the manufacturer's instructions as approved.

Valley Gutter Boards.—To be ¾ in thick and the full width of valley gutter.

Battens.—To be nailed at all crossings.

To be 3 in x 1½ in Oregon or 3 in x 1¼ in Hardwood spaced at maximum of 3 ft centres for corrugated metal roofing and at 2 ft 6 in centres for corrugated asbestos cement roofing.

Manhole.—Trim as required between ceiling joists for a manhole, 24 in x 16 in. Line the opening and provide a suitable cover.

Ventilation.—Provide for room ventilation above floor as may be required by the particular Local Authority. Appropriate special provision must be made where a gas bath heater or gas copper is installed.

Hot Water Tank.—Provide a platform above ceiling joists to support a hot water storage tank. The platform is to be positioned at an intersection of walls and be supported by those walls.

Verandah Posts.—To be 4 in x 4 in D.A.R. Hardwood/Oregon checked at top for plate and dowelled to concrete floor or secured to floor joists.

Roof.—Rafters to be 3 in x 2 in Kauri Pine fixed at 2'0" centres ready to receive roof covering.

Provide roof covering of A/C complete with all accessories.

Provide louvred ventilator as required and fix in wall at position indicated.

Form door opening and provide 6 ft 6 in x 2 ft 6 in ledged and braced door. Hang with two 10 inch tee hinges and furnish with suitable catch.

NIL FENCING

Paling Fencing.—Provide _____ feet run of 5 ft or 6 ft paling fencing or height to match existing. Posts to be 5 in x 2 in sawn, approved hardwood. Mortised for two rails and sunk into ground 24 inches at maximum of 9 ft centres.

Angle posts to be 5 in x 5 in. Well ram around all posts.

Where rock is encountered, posts are to be set in concrete.

Fit two rows of 3 in x 2 in hardwood rails into mortises.

Cover framing with hardwood palings. Double nail to rails at top and bottom. Cut to line at top and lop corners.

All timber in ground or concrete to be well tarred or treated with approved preservative.

Allow for repairing any existing fencing which is to remain.

Front Fencing.—Provide _____ feet of fencing constructed with 5 in x 5 in dressed hardwood angle and gate posts and 4 in x 3 in intermediate posts spaced not more than 8 feet centres; all to be sunk into ground a minimum of 2 feet, well tarred or treated with approved preservative and cut to line at top as directed. Chamfer the top of each post and mortise to receive rails.

Fit two rows of 4 in x 2 in dressed hardwood rails into mortises.

Provide panels of 10 gauge 2 inch mesh galvanised chain wire, 24 inches deep, well stretched and secured to rails and posts with galvanised staples.

Base to fence, see Addenda Sheet attached.

Gates.—Form 9 feet opening for gates and provide a pair of gates. Hang to posts already specified and provide stop, hooks, bolt and catch. Provide a 3 ft 0 in hand gate. Hang to posts already specified; provide catch.

Allow prime cost amount of $_____ for gates.

DRAINER

Note.—Drain pipes must not be taken through the footings of the building.

All seepage and soakage water is to be effectively dealt with and diverted clear of the building.

Trenches for drains must not be within 2 ft 0 in of footings of buildings where running parallel to same.

Sewered Areas.—Provide a drainage system from pedestal pan and from wastes of all fittings and connect to the sewer main, all to be in accordance with the Rules and Requirements of the Authority for Water Supply and Sewerage. Provide yard gulley at the rear of the building.

The Authority's Certificate to be produced at completion of the work.

Unsewered Areas.—Provide a drainage system from all fittings and from grease trap in accordance with the requirements of the Local Authority concerned.

Excavate for drains to provide even falls throughout and a minimum cover of 12 inches. Lay 4 inch socketed stoneware pipes to take soilwater from wastes of washtubs, bath, shower, wash basin, and grease trap. All pipes to be completely jointed in cement mortar *or* with rubber rings as approved.

All drain lines to be laid so that water is discharged or adequately absorbed, as required by the Local Council concerned. The Builder to ascertain and allow for the Council's requirements in this regard.

Provide an approved grease trap, with lid, in position shown to take the water from kitchen sink. Top of trap to be slightly above finished ground, or nearby concrete paving, level.

All drainage work from fittings to the drainage line outside the building to be in accordance with the Rules and Requirements of the Water Supply and Sewerage Authority for sewered areas. **That Authority's Certificate to be produced in respect of this work by the Builder.**

Roofwater Drains.—Allow for and lay _____ feet of roofwater drains. Drains to be 4 inch socketed stoneware pipes laid to an even and regular fall so as to have a minimum cover of 6 inches.

Joint each pipe in cement mortar. Connect drainage lines to downpipes with a suitable bend and discharge at least 10 feet clear of the building into absorption pits, or, into street gutter or right of way where required by the Local Council concerned.

PLUMBER

Eaves Gutters.—Provide 4½ in x 24 gauge galvanised steel quadrant guttering to all eaves. Set in position with sufficient fall to down pipes and secure with galvanised steel brackets spaced at maximum of 36 inches apart. All joints and angles are to be well lapped and double soldered.

Down Pipes.—Provide _____ stacks of ____ in x ____ in down pipes of 24 gauge galvanised steel. Connect each down pipe to gutter and roof water drains and secure to walls with neat galvanised steel astragals.

Valley Gutters.—To be 24 gauge galvanised steel, 18 inches wide fixed to valley boards with edges beaded, well lapped and soldered at joints.

Flashing.—Flash around chimney stacks, exhaust flues and wherever else required with 3 lb lead dressed well down on to roof slopes and taken up vertical faces at least 3 inches. Wedge step flashing into brickwork with lead and point with cement mortar.

Sanitary Plumber.—Sewered and Unsewered Areas—

Fix bath, wash basin, kitchen sink, wash tubs, pedestal pan and floor grate to shower recess in positions shown on plan.

Provide galvanised wrought iron wastes with traps to the above fittings and connect to the drainage system. The whole of the work to be performed in accordance with the Rules and Requirements of the Sewerage Authority concerned.

Bathroom Floor.—Provide overflow outlet in bathroom floor. Fit 2 inch chrome-plated grating. Provide galvanised wrought iron waste.

Water Service.—Lay on water from the supply Authority's main to the boundary of the lot and provide a stop cock. Extend with ¾ inch galvanised/copper tube to one garden point and to outside bathroom, laundry and kitchen or cooking recess. Branch off with galvanised/copper tube to cistern, bath, shower, bath heater, wash basin, wash tubs (2), copper, sink, etc., over yard gully, and hot water unit.

Piping concealed behind wall linings must be in copper. Properly secure all piping and provide chrome-plated flanges at internal wall faces. Terminate over fittings with approved chrome-plated high pressure taps and with high pressure brass hose cock to garden point.

Provide for fixing of cistern, bath heater, sink heater, hot water unit, copper and _____.

Hot Water Service.—Extend from hot water unit properly lagged copper tubing to points over bath, basin, shower, kitchen sink, copper and tubs. (Delete points not required.) Terminate at these points with chrome-plated taps or cocks as required. Provide inlet and outlet stop cocks to hot water unit and in positions to be indicated.

~~*Gas Service.*~~—The whole of the work is to be in accordance with the rules and requirements of the Supply Authority.

The Plumber is to be responsible for the internal gas service from the fence alignment including the fixing of the meter which is to be suitably protected.

Appliances.—Provide for and connect in the approved manner—Cooking Stove, Hot Water Unit, Room Heater, Central Heating Unit, Bath Heater, Wash Copper and _____

ROOFER

Tiles.—Cover the roof of Dwelling with first quality approved Cement roofing tiles.

The tiles are to be fixed to battens of sizes appropriate to the spacing of rafters/trusses by wiring every alternate tile in each course with non-ferrous or galvanised tie wire not thinner than 20 gauge *or*, where nail holes are provided, by nailing every tile in each third course with galvanised/copper flat head nails of sufficient length to penetrate ¾ in into tile battens.

Cover hips and ridges with Matching capping and all necessary starters and apex caps.

Capping and verge tiles are to be well bedded on lime mortar and neatly pointed with coloured cement mortar.

Sarking.—Where pitch of rafters is less than 22½ degrees (5 inch rise per foot span) and Marseilles pattern terra cotta tiles are used, or less than 20 degrees (4·5/16 inch rise per foot of span) and cement tiles are used, the roof shall be sarked with either 2-ply bituminous felt or double faced aluminium foil-covered reinforced fabric.

Where cement tiles are used on roofs pitched at 22½ degrees or less, the tiles are to have a minimum end lap of 4 inches. Above that pitch the end lap is to be not less than 3 inches.

Where the pitch is less than 16 degrees (3½ inch rise per foot of span) sarking is to be ¾ inch close boarding covered with two layers of 2-ply bituminous felt with joints half lapped or one layer of double sided aluminium foil-covered reinforced fabric lapped 6 in at joints. Alternatively, double sided aluminium foil-covered reinforced fabric may be supported on 1 in mesh galvanised wire netting or 1 in galvanised welded fabric over which is to be placed a layer of ·002 polythene.

All sarking is to be fixed so as to ensure the discharge of the penetrating water, without ponding, into the eaves gutter.

Metal Roofing.—Cover the roof of _____ with 26 gauge branded galvanised corrugated steel. The sheets are to be laid with not less than 1½ corrugations side laps and a minimum of 7 inch end laps. Paint all laps with an approved metallic paint.

Sheets are to be fixed with 1¾ inch galvanised round head screws and washers to every alternate corrugation at ends and every fourth corrugation intermediately.

Cover hips and ridges with 18 inch wide x 26 gauge galvanised steel capping, lapped and secured with galvanised screws and lead washers.

Cover the roof of _____ with _____ metal deck roofing manufactured by _____ fixed in strict accordance with the manufacturer's instructions as approved and complete with all necessary accessories.

Corrugated Asbestos Cement Roofing.—Cover the roof of _____ with _____ corrugated asbestos cement sheets fixed in strict accordance with the manufacturer's instructions as approved and complete with all necessary accessories.

Provide all necessary flashings and ensure that the roof is birdproof.

Fixing is to be with galvanised clouts and/or approved adhesive and be strictly in accordance with the manufacturer's recommendations as approved.

ELECTRICIAN

Provide all labour and material necessary for the proper installation of electricity service in accordance with the appropriate S.A.A. rules and the requirements of the Local Supply Authority.

Arrange with the Supply Authority for connection from supply mains to meter board.

Provide for the proper installation of and connect electricity to cooking stove, bath heater, sink heater, hot water unit, wash boiler, electric fire.

Provide 12 light points in positions shown on plan or to be determined. Approved switch for each point is to be mounted in positions to be indicated.

Provide a 40 watt lamp to each point.

Provide 8 power points of flush type with switches in positions shown on plan or to be determined.

Box.—Provide box to enclose meters in accordance with the Requirements of the Authority concerned.

TILE LAYER

Walls.—Cover the following wall faces with Selected glazed tiles:

To bathroom—to height of 4'0".

To shower-recess—to height of 6'0".

To enclosing bath and hobs.

Above kitchen sink and stove allow for 2 1/3 sq. yards.

Tiles are to be fixed with mortar consisting of 3 parts of sand and 1 part of cement, *or* with an approved adhesive, to a backing of approved material.

Provide all necessary round edge tiles, strips, vent tiles and recess fittings.

Floors.—Cover the following floor surfaces with Selected unglazed tiles:—Bathroom, Shower Recess, W.C. and _____ set to approved pattern on bed of mortar as specified above.

CEILING FIXER

Vapour Barrier.—Where the pitch of roof is less than 12½ degrees and metal or asbestos cement roofing is used, a material having effective vapour barrier and thermal insulation properties is to be fixed to the underside of ceiling joists where a level ceiling surface is to be provided.

Where the ceiling is to follow the pitch of the rafters, irrespective of the pitch of the roof, the vapour/thermal barrier is to be fixed to the underside of the rafters.

Provide ~~*fibrous plaster*~~ or *gypsum plaster board* ceilings to lounge, dining, bedroom/s, hall, kitchen, bathroom and _____.

Fibrous Plaster.—Sheets are to be nominal thickness of ⅜ inch, as large as practicable and well dried prior to being fixed in position.

Secure sheets with galvanised clouts to 1½ in x 1 in battens of approved timber fixed to underside of ceiling joists.

Battens are to be spaced at maximum of 16 inch centres and be packed to true lines. Provide double battens at all joints running parallel to the battens. The space between doubled battens shall be not more than 9 inches.

Scrim all joints from above and set joints flush with the finished surface. Punch all clouts below the surface and stop.

Gypsum Plaster Board.—Sheets are to have recessed edges and be ⅜ inch thick when fixed to ceiling joists/battens spaced at not more than 18 inch centres and ½ inch thick when fixed to ceiling joists/battens spaced at up to 24 inch centres.

Fixing is to be with galvanised clouts and/or approved adhesive and be strictly in accordance with the manufacturer's recommendations as approved.

Provide cornices of Victor Cove to the above ceilings, neatly mitred, properly fixed (and scrimmed and set) at all angles. Cornices to be in full wall lengths where practicable.

Provide *asbestos cement* ceilings to laundry, entry porch, front and back verandah, W.C. and _____ _____.

Sheets to be arranged in balanced pattern, fixed to properly nogged and even surface with all edges of sheets fixed to solid backing.

Cover all joints with cover strips and provide angle moulding or cornice as necessary.

INTERNAL WALL LININGS

Walls of lounge, dining, bedroom/s, hall and _____ to be lined from floor to ceiling with ~~*fibrous plaster*~~ sheets or *gypsum plaster board.*

Similarly cover wall of bathroom and kitchen from top of tiles or dado to ceiling.

Provide all necessary plaster wall vents and set flush with wall surfaces.

Fibrous Plaster.—Sheets are to be nominal thickness of ⅜ inch and the full length of wall where practicable. Where vertical joints are unavoidable they must be backed with double studs and be reinforced with sisal and plaster. All joints are to be set flush with the surface of sheets.

Provide 1½ in x 1½ in by 26 gauge galvanised iron strip to full height of internal angles.

Fix sheets to wall framing at edges and intermediately with galvanised clouts punched below surface and stopped.

Neatly set all angles. Fix 1 in quadrant to internal angles from skirting to picture rail.

Gypsum Plaster Board.—Fix horizontally with full length sheets, or staggered end joints, to ceiling height. Sheets are to have recessed edges and be ⅜ in thick when fixed to studs spaced at not more than 18 inch centres and ½ inch thick when fixed to studs spaced at up to 24 inch centres.

Fixing is to be with galvanised clouts and/or approved adhesive and be strictly in accordance with the manufacturer's recommendations as approved.

Ventilation.—Provide plaster vents to internal walls and/or ceilings as may be required by the particular Local Authority.

Internal angles from floor to ceiling to be set or covered by 1 inch angle moulding.

Walls of bathroom and kitchen or cooking recess to have a dado to 6 ft 0 in high of _____ and enclose bath with the same material. Fix approved vents to bath wall. Fix sheets with _____ and provide all necessary _____ cover strips, mouldings and angles.

Walls of laundry, W.C. and _____ to be covered with *asbestos cement* sheeting properly fixed and complete with all necessary cover strips, mouldings and wall vents.

PAINTER

Generally.—All paints, stains, varnishes, and water colours are to be properly mixed, be of approved brands and brought to the job in unopened containers.

Material used for priming is to be as recommended by the manufacturers of the paints to be used.

All finishing colours are to be selected by the Member.

Do all necessary stopping after the priming has been applied. Rub down all surfaces to a smooth finish prior to the application of each successive coat of paint.

Externally.—

Prime before Fixing.—All dressed surfaces of external woodwork, all door and window frames, including the underside and ends of sills, are to be primed before fixing.

Woodwork.—After priming, all exposed woodwork is to be given an undercoat and finished with one coat of Gloss / Sonstwood.

Ironwork.—Eaves gutters, downpipes and service pipes and all wrought iron, etc., to be cleaned and given one good coat of oil paint, all round.

Asbestos Cement.—Clean and prepare all external asbestos cement surfaces for colouring, then give two coats of Flat Plastic.

Internally.—

Woodwork.—All exposed woodwork in all rooms to be prepared, primed then given one good undercoat and finished with one coat of Gloss / Sonstwood

Cupboards.—The interior of cupboards in _____ to be given two coats of _____ All other woodwork to be filled, stained and finished with two coats of oil or spirit varnish or other approved material, rub down between coats, or _____

_____

Ironwork.—Paint flue pipes with one coat of aluminium paint. Paint all exposed service pipes with one coat of oil paint all round.

Ceilings.—

~~*Fibrous Plaster.*~~—To be prepared and given two coats of _____

Gypsum Plaster Board.—To be prepared and given one coat of varnish based sealer and two coats of Flat Plastic.

Walls.—

~~*Fibrous Plaster.*~~—To be prepared and given two coats of _____.

Gypsum Plaster Board.—To be prepared and given one coat of varnish based sealer and two coats of Flat Plastic.

Dado in _____ to be prepared and given one coat of sealer then painted with one coat of oil paint and finished with a coat of enamel paint.

GLAZIER

All window sashes and lights are to be glazed.

All glass is to be back puttied, well sprigged into primed or oiled rebates and weather puttied.

Glass is to be free of defects and of the proper weights, relative to the sizes of sheets.

Clear glass is to be used for windows/doors in _____

Obscure glass is to be used for windows/doors in _____

Clean all glass on completion of work.

COMPLETION

The building is to be completed in every trade. Sashes and doors to be eased, locks oiled and all plant, surplus building materials and rubbish removed from the site. Gutters and drains to be cleared and the building generally to be left clean and fit for occupation.

The builder is to furnish the Member with—

Notification of completion.

Certificate from Sewerage Authority re sanitary drainage.

Invoices for P.C. items.

All keys for all doors.

SCHEDULE OF ALLOWANCES

The Builder is to allow the prime cost amounts set out in this Schedule, all items to be selected by the Member.

All amounts are Retail Prices, and do not include the cost of cartage, freight, fixing or fitting, all of which is to be paid for and done by the Builder as part of his Contract.

	Amount
✓ 1 bath	80.00
✓ 1 wash basin including brackets VANITY	75.00
✓ 1 kitchen sink and drainer	40.00
✓ 1 set of ~~two~~ compartment wash tubs S.S.S.	76.00
~~1 wash boiler. Electric, Gas, Fuel~~	
✓ 1 cooking stove. Electric, ~~Gas, Fuel~~	190.00
~~1 water heater for bath. Electric, Gas, Fuel~~	
✓ 1 hot water unit. Electric, Gas, Fuel	112.00
✓ 1 towel bar	5.00
1 pedestal pan	
✓ 1 low down suite (complete)	45.00
1 seat	
1 cistern complete with brackets	
1 soil pan cover	
	623.00

_____MEMBER.

/ /19

_____BUILDER.

/ /19

V. C. N. BLIGHT, GOVERNMENT PRINTER, NEW SOUTH WALES—1970

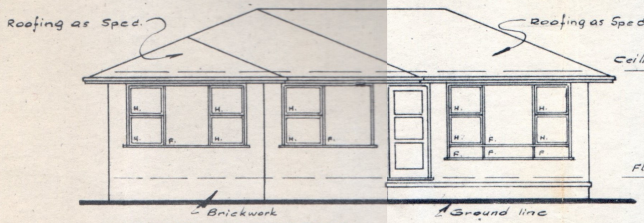
A P P E N D I X C

PLAN, ELEVATION AND SECTIONS OF SUBJECT

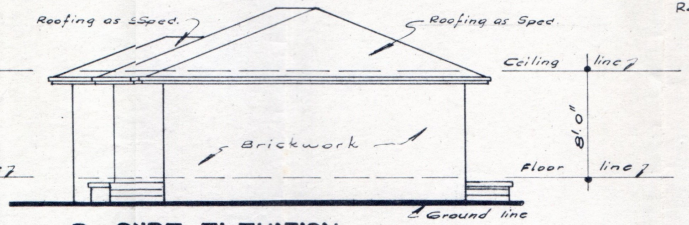
BUILDING INCLUDING SITE PLAN

(REFERENCE SHOULD BE MADE TO THE

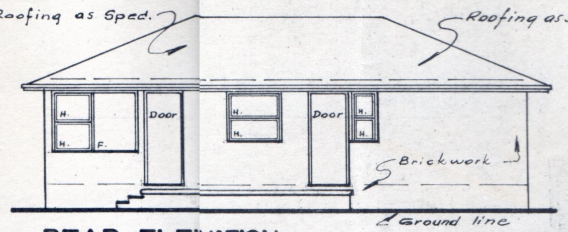
TEXT OF THE REPORT)



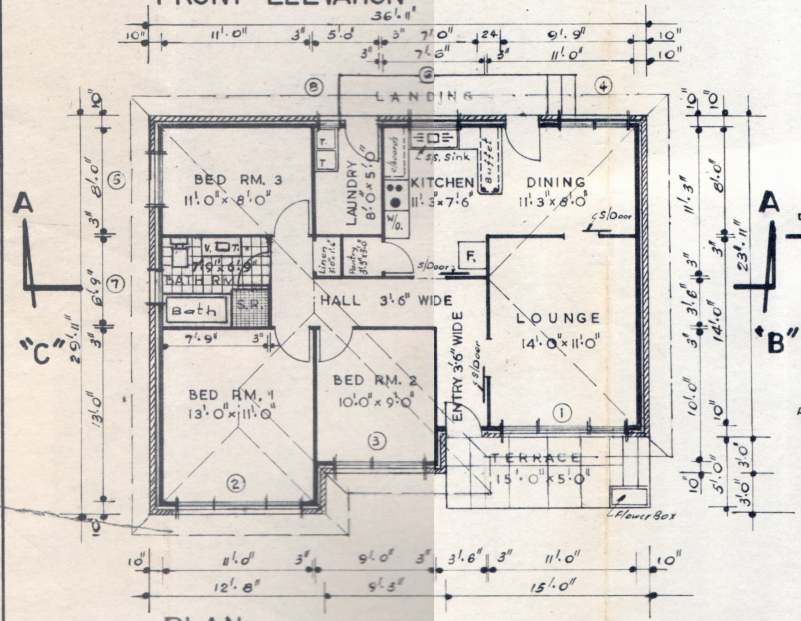
FRONT ELEVATION



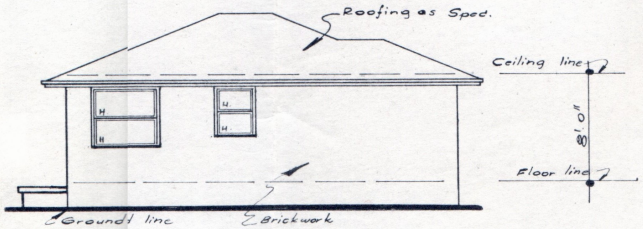
B SIDE ELEVATION



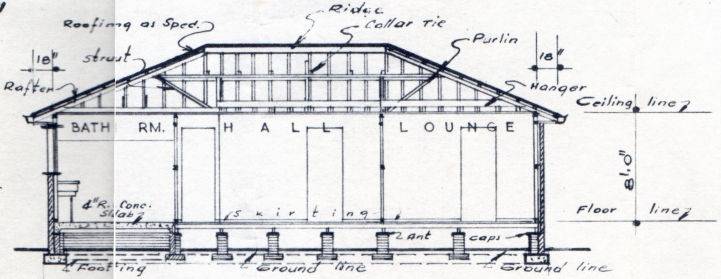
REAR ELEVATION



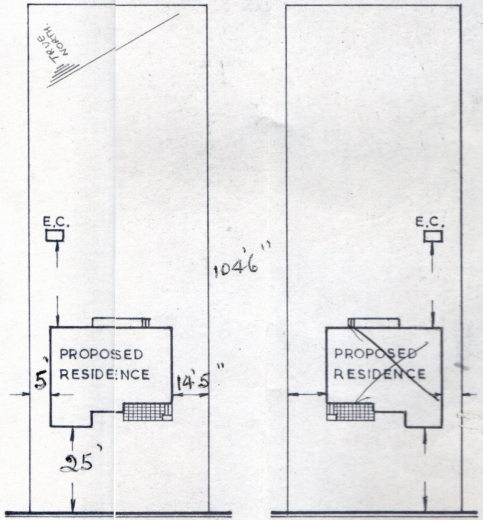
PLAN



C SIDE ELEVATION



SECTION A-A



SITE PLAN

WINDOW	SHEDULE
①	⑤
②	⑥
③	⑦
④	⑧

PROPOSED BRICK VENEER RESIDENCE.
AT Lot 58 Lamond St. (D.P. 237817) Windsor
FOR West Rarland Pty Ltd

AGENTS:
HARVEY PRIOR PTY. LTD.
2 MAIN STREET, BLACKTOWN.
PHONE: 622-6800

BUILDERS:
HERALD HOMES PTY. LT'D.
BOX 115, P.O. BLACKTOWN.
PHONE: 622-7302

"FRANCIS PLAN SERVICE"
44 FLUSHCOMBE ROAD,
BLACKTOWN. PHONE: 622-6364

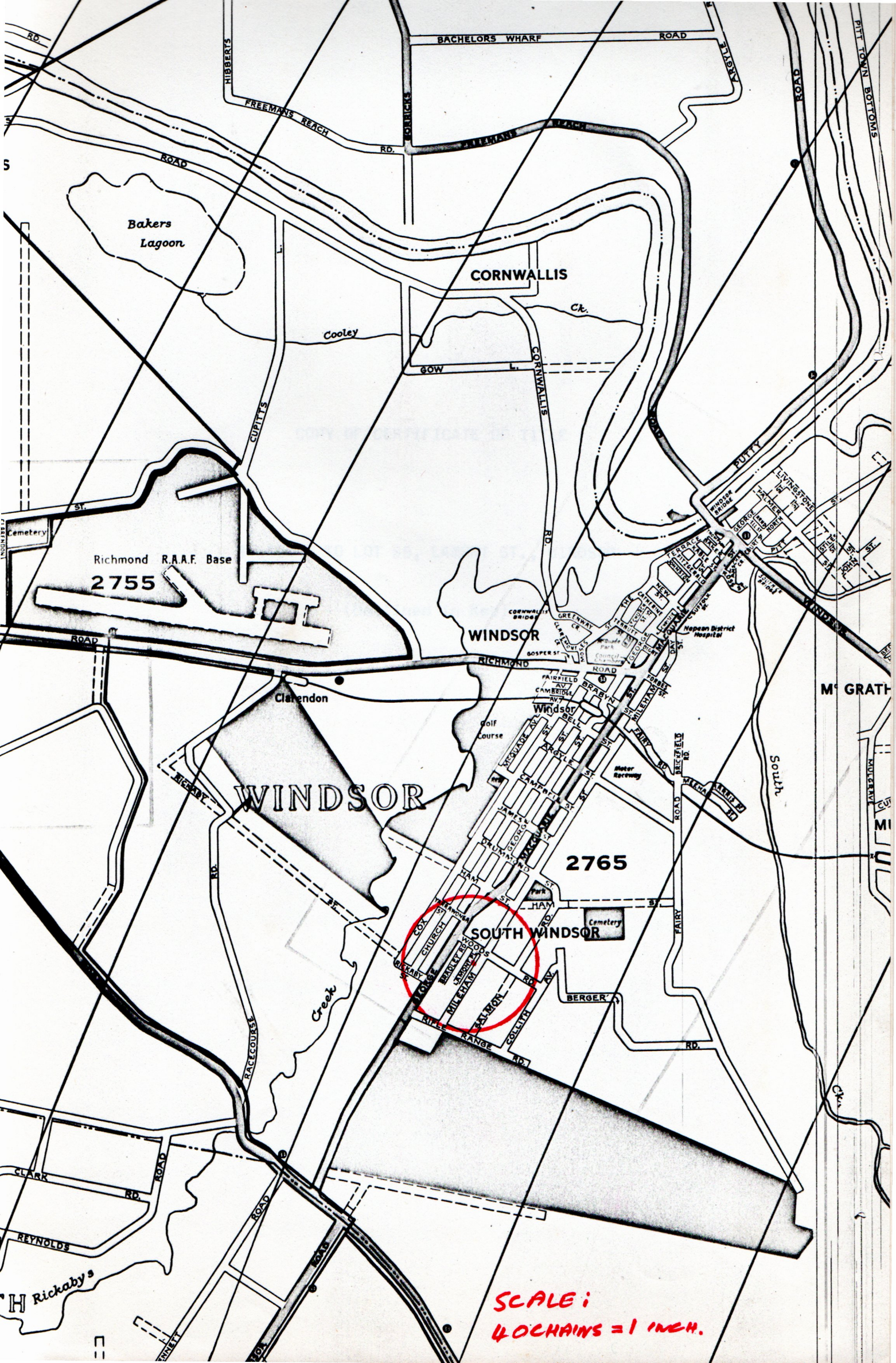
AREA:	SCALE:	DRG. No.
9.87 SQ. Ft. Not including Terrace	1/8" = 1'-0" 1/32" = 1'-0"	301-B.Y.

APPENDIX D

LOCATION MAP

SHOWING THE RELATION OF THE SUBJECT

BUILDING TO THE TOWN OF WINDSOR


BACHELORS WHARF ROAD
HIBBERTS
FREEMANS REACH RD.
ROLLICKS
ARGYLE
PITT TOWN BOTTOMS ROAD
Bakers Lagoon
CORNWALLIS
Ck.
Cooley
GOW
CURTTS
CORNWALLIS RD.
PUTTY ROAD
Cemetery
Richmond R.A.A.F. Base
2755
WINDSOR
Nepean District Hospital
RICHMOND ROAD
Clarendon
Windsor
Golf Course
WINDSOR
RICKABY RD.
Mc GRATH
2765
SOUTH WINDSOR
Cemetery
COX
CHURCH
BRADLEY
WOODS
MILLHAM
BERGER
COLLETT
RANGE RD.
RACECOURSE
Creek
South
CLARK RD.
REYNOLDS
Rickaby's
SCALE:
40 CHAINS = 1 INCH.

A P P E N D I X E

COPY OF CERTIFICATE OF TITLE

RELATING TO LOT 58, LAMONT ST., WINDSOR

(Outlined in Red)

NEW SOUTH WALES

CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1900, as amended.

TORRENS TITLE
Register Book

Crown Grant Volume 7765 Folio 140
Prior Title Volume 9738 Folio 52

Vol. 11054 Fol. 111

ID

Edition issued 23-5-1969

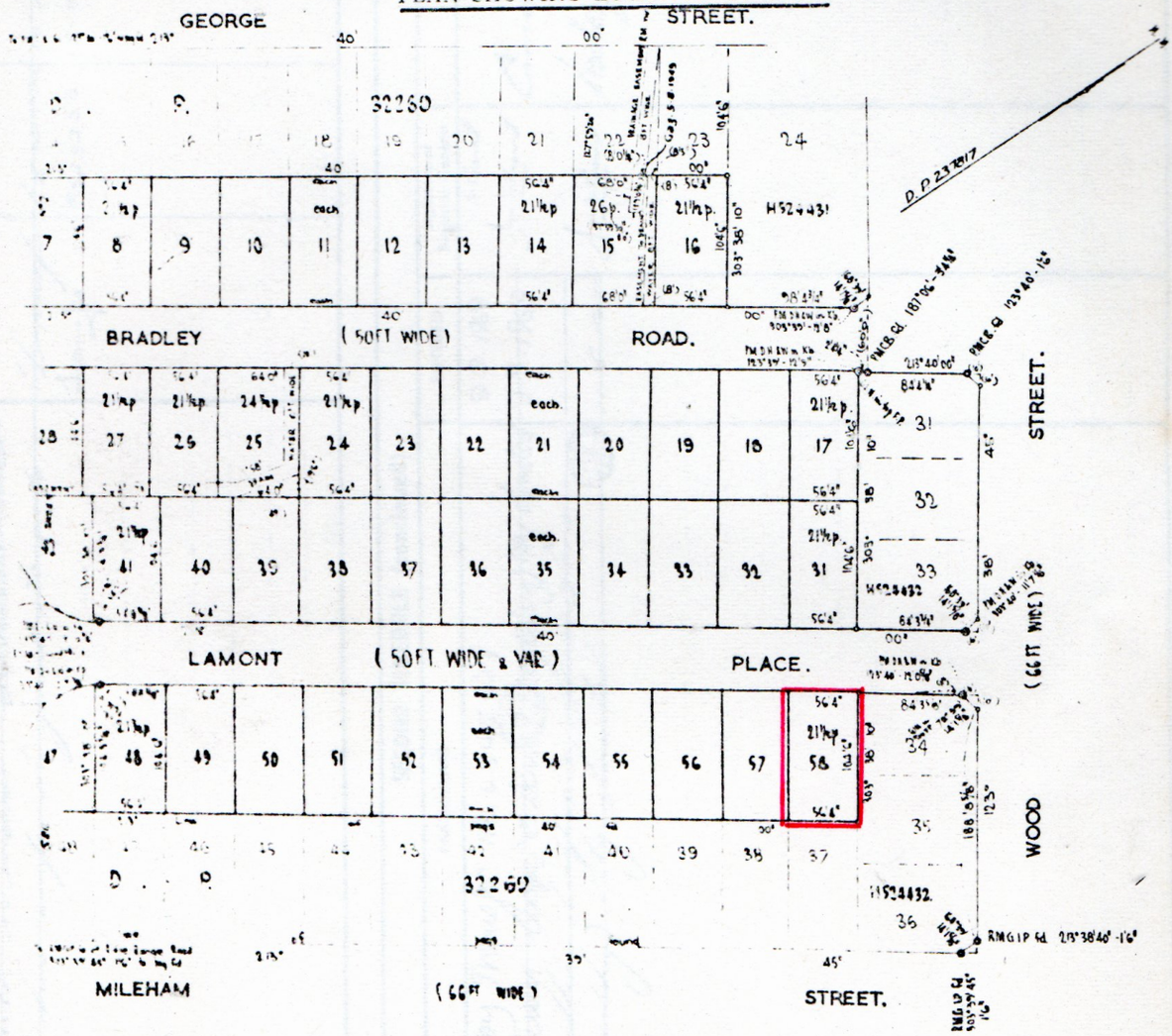
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness L. Sullivan

Registrar General.

REGISTRAR GENERAL NEW SOUTH WALES

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 58 in Deposited Plan 237817 at South Windsor in the Municipality of Windsor Parish of St. Matthew and County of Cumberland EXCEPTING THEREOUT the minerals reserved by the Crown Grant.

FIRST SCHEDULE

~~WILLIAM COOPER & SONS (PTY.) PTY. LIMITED.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.

Registrar General

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

(Page 1) Vol 11054 Fol 111

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

The dwelling as it appears in Google Streetview of 2020.